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The University Bulletins

UNIVERSITY OF PENNSYLVANIA

SCHOOL OF DENTISTRY

(1910-1911)

Announcements for the 34th Annual Session

1911-1912

SEP 27 1961
UNIVERSITY OF ILLINOIS



Founded 1740

PHILADELPHIA

Published by the University
Bi-Monthly
May, 1911

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SPECIAL NOTICE.

Copies of the University Catalogue (containing detailed information concerning all the Schools) may be obtained ONLY upon application to the Secretary of the University, Room 114, College Hall.

To any alumnus of the University, the Catalogue will be sent upon application on receipt of name, class and address.

The special announcement of the following divisions of the University will be sent upon application to the appropriate Dean:

THE COLLEGE, including

THE SCHOOL OF ARTS.

THE TOWNE SCIENTIFIC SCHOOL.

THE WHARTON SCHOOL OF FINANCE AND COMMERCE.

THE SUMMER SCHOOL.

THE COLLEGE COURSES FOR TEACHERS.

THE GRADUATE SCHOOL.

THE LAW SCHOOL.

THE SCHOOL OF MEDICINE.

THE SCHOOL OF DENTISTRY.

THE SCHOOL OF VETERINARY MEDICINE.

UNIVERSITY OF PENNSYLVANIA

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THE UNIVERSITY.

General Information.

LOCATION.

The buildings of the University of Pennsylvania, thirty in number, are situated in Philadelphia, on property covering an area of over fifty-nine acres. In addition to this land the University has recently acquired from the city an adjoining tract comprising fifty-five acres, more or less. The University may be reached from the various railroad stations as follows: From the West Philadelphia station of the Pennsylvania Railroad, on foot west on Woodland avenue, a walk of less than ten minutes; from the Philadelphia and Reading Terminal station by the electric subway, west to Thirty-second street, thence on foot west on Woodland avenue; or from the Baltimore and Ohio Railroad station by a walk of one square south to Walnut street, thence by car over the bridge west to Thirty-fourth street.

APPLICATIONS FOR CATALOGUES, ETC.

Applications for copies of the annual University Catalogue should be addressed to the Secretary of the University of Pennsylvania, Philadelphia, Pa.

The University also issues pamphlets relating to the College and the several Schools or to individual Departments and often containing information not found in the Catalogue. Inquirers interested in special branches of work only are advised to apply for these

pamphlets, not for the Catalogue.

All letters of inquiry regarding the internal regulations and requirements in the College or each separate School of the University should be addressed to the Dean of that section (see Administrative officers, following), and not to the Secretary of the University.

ACCOMMODATIONS FOR STUDENTS.

Lodging for students to the number of more than eight hundred is provided in the present dormitory system, which comprises an extended group of contiguous houses fronting upon three open courts. Plans of the dormitories, prices, and other details may be obtained upon application to the Bursar of the University, College Hall.

Board and lodging may be obtained also in the immediate vicinity of the University. Upon application at the offices of the several Deans (see Administrative officers, following), lists of approved

boarding houses may be seen.

(3)

UNIVERSITY OF PENNSYLVANIA.

CHRONOLOGICAL TABLE.

1740—" Charity School" founded.

1749—The "Academy" established, with which the Charity School was combined.

1753—Charter granted by Thomas and Richard Penn, incorporating "The Academy and Charitable School."

1755—" Confirmatory Charter" granted by Thomas and Richard Penn, incorporating "The College, Academy and Charitable School."

1765-School of Medicine founded.

From September, 1777, to June, 1778, owing to the occupation of Philadelphia by British troops, recitations and lectures were suspended.

1779—Withdrawal of the chartered rights and privileges of The College by the State Assembly, and incorporation of the "University of the State of Pennsylvania."

1789—Restoration of its chartered rights and privileges to The College.

1790—Law School founded (re-established in 1850).

1791—Union of the University of the State of Pennsylvania with The College, under the title of the University of Pennsylvania.

1874—University Hospital established.

1875-Towne Scientific School founded.

1877—Department of Music established.

1878—School of Dentistry founded.

1881-Wharton School of Finance and Commerce founded.

1882—Graduate School founded.

1884-Veterinary School founded.

1885-Veterinary Hospital established.

1885—Department of Physical Education established.

1889—Department of Archaeology established.

1892—Laboratory of Hygiene established.

1892—Wistar Institute of Anatomy and Biology established.

1892-Saturday Courses for Teachers established.

1896-Houston Club organized.

1806—Flower Astronomical Observatory opened.

1904—Summer School (College) established.

1906-College Courses for Teachers established.

1910-Henry Phipps Institute transferred to the University.

ADMINISTRATIVE OFFICERS.

OF THE CORPORATION.

- Provost—EDGAR F. SMITH, Ph. D., Sc. D., LL. D.
 Office in the John Harrison Laboratory of Chemistry, Thirtyfourth and Spruce Streets.
- Vice-Provost—Josiah H. Penniman, Ph. D., LL. D. Office in College Hall.
- Secretary—Edward Robins.

 Office, 114 College Hall. Office hours, 9.30 A. M. to 4.30 P. M. Saturdays, 9.30 A. M. to 1 P. M.
- Treasurer—WILLIAM H. HUTT, JR. General Offices, 400 Chestnut Street.
- Bursar—William O. Miller, A. B.
 Office, 102 College Hall. Office hours, 9 A. M. to 5 P. M., daily.
 The Bursar's office is open from 8.45 A. M. to 5 P. M. Saturdays, 8.45 A. M. to 1 P. M.

OF THE COLLEGE AND PROFESSIONAL FACULTIES.

- Dean of the College Faculty—George Egbert Fisher, Ph. D. Office, 103 College Hall, Woodland Avenue. Office hours, 9 A. M. to 12 M., daily.
- Dean of the Graduate School Faculty—Herman V. Ames, Ph. D. Office, 105 College Hall, Woodland Avenue. Office hours, 9 A. M. to 12 M., daily.
- Dean of the Law Faculty—WM. DRAPER LEWIS, LL. B., PH. D. Office in the Law School Building, Thirty-fourth and Chestnut Streets. Office hours, 11.15 A. M. to 12.15 P. M., daily, except on Wednesdays and Thursdays, 12.15 to 1 P. M.
- Dean of the Medical Faculty—ALLEN J. SMITH, A. M., M. D., Sc. D.
 The Dean's Office (in the Medical Laboratories, Hamilton Walk)
 is open from 9 A. M. to 5 P. M.; Saturdays, 9 A. M. to 1 P. M.

- Dean of the Dental Faculty—Edward C. Kirk, D. D. S., Sc. D Office, Dental Hall, Thirty-fourth and Locust Streets. Office hours, 9 A. M. to I P. M., daily.
- Dean of the Faculty of Veterinary Medicine-Louis A. Klein, V. M. D.
 - Office, Veterinary Building, Thirty-ninth Street and Woodland Avenue. Office hours, I to 2 P. M., daily.

OF THE DEPARTMENT OF PHYSICAL EDUCATION.

Director-R. TAIT MCKENZIE, A. B., M. D.

Other hours by appointment.

Office in the Gymnasium, Thirty-third and Spruce Streets. Office hours, 3 P. M. to 6 P. M., daily, except Saturdays.

Physician—Rufus B. Scarlett, M. D., 4005 Chestnut Street.

Office hours daily, from 8 to 9 A. M., 12 to 1 P. M., and from 7 to 8 P. M. Sundays until 10 A. M. Telephone connection.

Ophthalmologist—William Campbell Posey, A. B., M. D., 2049 Chestnut Street.

Office hours, from 8.30 A. M. to I P. M., daily. Telephone connection.

OF OTHER DEPARTMENTS.

Librarian of the University—Morris Jastrow, Jr., Ph. D.
Office in the Library, Thirty-fourth Street below Walnut. Office hours, 10 A. M. to 1 P. M.

Assistant Librarian—KATHARINE STOCKTON LEIPER.

Office in the Library. Office hours, 2 P. M. to 5 P. M.

The Library is open daily during term-time, except Sundays and holidays, from 8.30 A. M. to 10 P. M. During the summer vacation, from 9 A. M. to 5 P. M.; during the session of the Summer School, from 8.30 A. M. to 5 P. M.

Librarian of the Biddle Law Library—Mrs. Margaret C. Klingelsmith, LL. B.

Office in the Law School Building, Thirty-fourth and Chestnut Streets. Office hours, 10 A. M. to 5 P. M., daily.

- Manager of the Bureau of Publicity—George E. NITZSCHE, LL. B. Office in Houston Hall (third floor), Spruce Street above Thirty-fourth. Office hours, 9 A. M. to 5 P. M., daily.
- Superintendent of the University Hospital-Marion E. Smith.
 - The Hospital is on Spruce Street above Thirty-fourth. Communications concerning the business of the Hospital and the admission of patients should be addressed to the Superintendent.
- Director of the William Pepper Clinical Laboratory—Alfred Stengel, M. D., Sc. D.
 - Office in the Laboratory. Office hours, 2 P. M. to 3 P. M., daily. The Laboratory is on Spruce Street below Thirty-sixth, adjoining the Hospital.
- Director of the Wistar Institute—MILTON J. GREENMAN, PH. B., M. D. Office in the Institute, Thirty-sixth Street and Woodland Avenue. Office hours, from 9 A. M. to 12 M., daily, except Saturdays.
- Director of the John Harrison Laboratory of Chemistry—Edgar. F. Smith, Ph. D., Sc. D., LL. D.
 - Office in the Laboratory, Thirty-fourth and Spruce Streets.
- Director of the Laboratory of Hygiene—Alexander C. Abbott, M. D., Sc. D.
 - Office in the Laboratory, Thirty-fourth Street below Walnut.
- Director of the Randal Morgan Laboratory of Physics—Arthur W. Goodspeed, Ph. D.
 - Office in the Laboratory, Thirty-fourth Street below Walnut.
- Director of the Psychological Laboratory—Lightner Witmer, Ph. D.
 - Office in the Laboratory, College Hall.
- Director of the Light and Heat Station—Samuel B. Locke.

 Office in the Central Light and Heat Station, Thirty-fourth and Spruce Streets.
- Director of the Botanic Garden—John M. Macfarlane, D. Sc.

 The Botanic Garden is adjacent to Biological Hall, on Hamilton Walk, and is open daily from 7 A. M. to sunset. The greenhouses are open from 8 A. M. to 5 P. M.

Director of the Flower Astronomical Observatory—Charles L. Doolittle, C. E., Sc. D.

The Observatory is situated on the West Chester Pike, one and three-fourths miles beyond the city limits. (Take elevated cars on Market Street to Sixty-ninth Street, then change to Ardmore or West Chester car.) The residence of the Director is adjacent to the Observatory.

Director of the Wharton School of Finance and Commerce—James T. Young, Ph. D.

Office, Logan Hall, Thirty-sixth Street below Woodland Avenue. Office hours, II A. M. to I P. M., daily.

Director of the Summer School—Albert Duncan Yocum, Ph. D. Office hours, 1 P. M. to 3 P. M., daily, except Saturday.

Director of Courses in Tropical Medicine—Allen J. Smith, M. D., Sc. D.

Dean's Office, Medical Laboratory Building, Thirty-sixth and Hamilton Walk.

Purchasing Agent—Boulton Earnshaw,
Office, College Hall. Office hours, 9 A. M. to 4.30 P. M.

HENRY PHIPPS INSTITUTE.

Director of the Laboratory-Paul A. Lewis, M. D.

Director of Clinical Department-H. R. M. LANDIS, M. D.

Director of Sociological Department and Superintendent—Alexander M. Wilson, A. B.

UNIVERSITY MUSEUM.

The Museum contains the archaeological and ethnological collections of the University, and is situated on Spruce Street below Thirty-fourth, opposite Franklin Field. The collections are open to visitors daily, during the scholastic year, New Year's Day, Good Friday and Christmas Day excepted, from 10 A. M. to 5 P. M.; on Sundays, from 2 P. M. to 6 P. M.

GENERAL SUMMARIES.

Officers of Instruction.

The College		259	
Graduate School		99	
Law School		32	
School of Medicine		155	
" " Veterinary I	Medicine	25	
Emeritus Professors		5	
			630
Duplications			131
Total			499
	STUDENTS.		
	0.000		
The College		3730	
Graduate School		416	
Law School		347	
" " Dentistry		462	
" " Veterinary	Medicine	154	
			5,572
Duplications			180
Total			5,392
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GEOGRAI	PHICAL SUMMARY OF ST	TUDENTS.	
Alabama	Bermuda 1	Colorado	TO.
	Brit. West Indies 3		
	California20		
	Canada22		
	Central America11		
	China24		

England 4	Minnesota19	Scotland 3
Egypt 4	Mississippi 2	South America45
Florida1e	Missouri19	South Carolina16
France 9	Montana 2	South Dakota 2
Georgia17	Nebraska 8	Spain 2
Germany 8	Nevada 1	Sweden 3
Holland 3	New Hampshire 18	Switzerland I
Idaho 3	New Jersey477	Tennessee10
Illinois14	New Mexico 2	Texas12
India	New York283	Turkey 1
Indiana36	New Zealand 8	Turkey in Asia 2
Iowa22	North Carolina29	Utah 6
Ireland 4	North Dakota 1	Vermont 8
Italy 8	Ohio63	Virginia28
Japan 7	Oregon 7	Washington19
Kansas 8	Panama 6	West Virginia15
Kentucky15	Pennsylvania, out-	Wisconsin17
Korea 1	side of Phila1497	Wyoming I
Louisiana 6	Philadelphia2240	
Maine21	Philippine Islands 2	Total5,572
Maryland96	Porto Rico23	
Massachusetts57	Rhode Island10	Duplications 180
Mexico	Russia 5	
Michigan10	Santo Domingo 1	Total5,392

SCHOOL OF DENTISTRY.

FACULTY.

EDGAR F. SMITH, Ph. D., Sc. D., LL. D., Provost. JOSIAH H. PENNIMAN, Ph. D., LL. D., VICE-Provost.

JAMES TRUMAN, D. D. S., LL. D., Emeritus Professor of Dental Pathology, Therapeutics and Materia Medica.

EDWIN T. DARBY, D. D. S., M. D., Professor of Operative Dentistry and Dental Histology.

EDWARD T. REICHERT, M. D., Professor of Physiology.

GEORGE A. PIERSOL, M. D., Sc. D., Professor of Anatomy.

JOHN MARSHALL, M. D., NAT. Sc. D., LL. D., Professor of Chemistry and Toxicology.

EDWARD C. KIRK, D. D. S., Sc. D., Professor of Dental Pathology, Therapeutics and Materia Medica, and Dean of the Faculty.

ALEXANDER C. ABBOTT, M. D., Sc. D., PEPPER Professor of Bacteriology.

MATTHEW H. CRYER, D. D S., M. D., Professor of Oral Surgery.

CHARLES R. TURNER, D. D. S., M. D., Professor of Mechanical Dentistry and Metallurgy.

GEORGE G. MILLIKEN, D. D. S., M. D., Assistant Professor of Operative Technics.

DAVID H. BERGEY, A. M., M. D., Assistant Professor of Bacteriology.

R. HAMILL D. SWING, D. D. S., Assistant Professor of Oral Surgery and Anesthesia.

A. DEWITT GRITMAN, D. D. S., Assistant Professor of Mechanical Dentistry.

FREDERIC A. PEESO, D. D. S., Assistant Professor of Crownand-Bridge Work.

LECTURERS.

ROBERT HUEY, D. D. S., Lecturer on Operative Dentistry. JOHN D. THOMAS, D. D. S., Lecturer on Nitrous Oxide.

MEYER L. RHEIN, D. D. S., M. D., Lecturer on Dental Pathology.

SAFFORD G. PERRY, D. D. S., Lecturer on Operative Dentistry. WILLIAM A. CAPON, D. D. S., Lecturer and Special Instructor in Porcelain Work.

ALFRED P. LEE, D. D. S., Lecturer on Materia Medica.

WILLIAM WALLACE WALKER, M. D. S., D. D. S., Lecturer on Clinical Dentistry.

DEMONSTRATORS.

WILLIAM DIEHL, D. D. S., Demonstrator of Operative Dentistry. GEORGE H. CHAMBERS, M. D., Assistant Demonstrator of Normal Histology.

FREDERICK W. AMEND, Jr., D. D. S., Demonstrator of Mechanical Dentistry.

MILTON N. KEIM, Jr., D. D. S., Demonstrator of Mechanical Dentistry.

JAMES G. LANE, D. D. S., Demonstrator of Mechanical Dentistry. DANIEL W. FETTEROLF, M. D., Demonstrator of Chemistry. ROBERT J. SEYMOUR, D. D. S., Demonstrator of Mechanical Dentistry.

JAMES A. DOWDEN, D. D. S., Demonstrator of Mechanical Dentistry.

LEON ALONZO RYAN, PH. D., Assistant Demonstrator of Chemistry.

WILSON ZERFING, D. D. S., Demonstrator of Operative Dentistry.

AUGUSTUS O. KOENIG, B. S., M. D., Demonstrator of Dental Metallurgy.

G. JANVIER PAYNTER, D. D. S., Demonstrator of Tooth Modeling.

FREDERICK W. ALLEN, D. D. S., Demonstrator of Operative Technics.

JOHN A. McCLAIN, D. D. S., Demonstrator of Operative Dentistry.

J. GARRETT HICKEY, D. D. S., Demonstrator of Physiology.

S. MERRILL WEEKS, D. D. S., Demonstrator of Orthodontia.

- WALTER W. McKAY, D. D. S., Demonstrator of Porcelain Inlay Work.
- JEHU T. GORE, D. D. S, Demonstrator of Operative Dentistry. WALTER S. CORNELL, M. D., Demonstrator of Osteology.
- CHARLES H. JACO, D. D. S., Demonstrator of Operative Dentistry.
- ALFRED P. LEE, D. D. S., Demonstrator of Operative Dentistry. GEORGE M. DORRANCE, M. D., Demonstrator of Applied Anatomy.
- MICHAEL T. BARRETT, D. D. S., Demonstrator of Mechanical Dentistry.
- WILLIAM H. F. ADDISON, M. B., Demonstrator of Normal Histology.
- ELON L. KANAGA, D. D. S., Demonstrator of Crown-and-Bridge Work.
- DOUGLAS O. HENSON, D. D. S., Demonstrator of Operative Dentistry.
- EDWARD KENNEDY, D. D. S., Demonstrator of Mechanical Dentistry.
- PHILIP KURTZ, D. D. S., Demonstrator of Mechanical Dentistry. SIDNEY A. SANDS, D. D. S., Demonstrator of Operative Dentistry.
- LESLIE M. CRAVER, D. D. S., Demonstrator of Operative Dentistry.
- JOHN W. DISMANT, D. D. S., Demonstrator of Mechanical Dentistry.
- GORDON J. SAXON, M. D., Assistant Demonstrator of Normal Histology.
- EUGENE K. KRAUSE, D. D. S., Demonstrator of Crown-and-Bridge Work.
- WILLIAM T. CONARD, D. D. S., Demonstrator of Mechanical Dentistry.
- EMERSON R. SAUSSER, D. D. S., Demonstrator of Porcelain Inlay Work.

JOHN A. REIMOLD, Secretary of the School of Dentistry.

CLINICAL INSTRUCTORS.

Dr. Edward I. Keffer, Dr. John R. Yorks, Dr. Daniel N. McQuillen.

ORGANIZATION OF THE DENTAL SCHOOL.

The School of Dentistry of the University of Pennsylvania was organized in the early part of 1878. It was the third school created as the dental department of a university, having been preceded in this respect by the Harvard School of Dentistry (organized in 1867), and the Dental Department of the University of Michigan (organized in 1875).

The motive leading to the creation of dental schools as regular departments of the university educational system was the rapid growth of dentistry as a profession. This necessitated improvement in the educational equipment of its practitioners, and tended to broaden the courses of instruction furnished by dental schools to meet the continual demand for more thorough training.

Realizing that but two conceptions of the status of dentistry were possible, viz.: that it was either a branch of medicine, or else a separate profession; and believing that its close relationship with medicine called for the future development of dentistry in conformity therewith, the Trustees took action resulting in the creation of the School of Dentistry of the University of Pennsylvania. The plan of instruction was so arranged that the branches common to both medicine and dentistry were taught concurrently by teachers who held corresponding chairs in both medical and dental faculties; while the strictly dental teaching was provided for by the creation of chairs whose incumbents were specially qualified for giving instruction in their respective branches. This arrangement is in strict accordance with the university idea, by which the teaching of allied branches is centralized in different departments. It does not imply that the School of Dentistry is a branch of the School of Medicine, for, as a matter of fact, both are distinct Schools of the University.

It is worthy of note that the School of Dentistry is actually, as well as in name, a School of the University. Its position as a recognized member of the University family confers upon its students certain advantages pertaining to that relationship. Its students enjoy in common with all other students of the University the privileges and social relationships pertaining to the student life of the whole body. Prominent among these features is membership in the Houston Club, an organization governed by students and domiciled in a club house which in its fittings and appointments is second to no other club in Philadelphia. Its students have also the use of the Dormitories, and are admitted to all of the athletic features of the University; while, with reasonable restrictions,

the opportunity is afforded them to pursue such allied lines of study as in the judgment of the authorities may tend to add strength and fullness to the dental educational equipment.

The practical advantages that accrue to the dental student by such a broad policy are at once manifest. Its effect upon the status of the dental practitioner must be recognized when it is considered that during the student life, his association with the students of the other divisions of the University is upon a basis of equality in all that concerns the student life of the institution. The influence of this feature in bringing about a close relationship between dental and medical students develops a mutual respect and recognition, which in their career as practitioners is of the utmost importance.

EQUIPMENT.

The arrangement of the interior of the Dental Hall is such that facilities are provided for the thorough education of the student in every important detail of his professional work. The clinical operating-room occupies one entire floor of the main building, giving a floor space 180 by 50 feet, furnished with one hundred latest pattern Wilkerson operating chairs, each provided with a fountain cuspidor, with running water attached, and attachment for the Fisk saliva ejector. Each chair is provided with a bracket arm, and table for holding instruments, besides a separate table for the instrument case. Electric service is provided for each chair. A complete locker system in connection with the operative clinic furnishes means for the storage of instruments when not in use. In the fitting up of the operating-room, the aim has been to make the appointments as nearly as possible like those of a firstclass private office, so that from the beginning of his course the student is familiarized with the conditions he will meet in actual practice.

One large general laboratory for prosthetic work is provided, and separate departments for crown-and-bridge work, orthodontia technics, prosthetic technics, operative technics, porcelain work including inlays, crown-and-bridge and continuous gum work, metallurgical work, cast metal fillings, vulcanizing and modeling; also special clinic rooms and laboratories. Ample arrangements are provided for the convenience and comfort of the students in the care of instruments, tools, etc. There are also hat and coat rooms, lavatories, etc., a bicycle-room, laundry, store-rooms, and living apartments of the janitor; and an assembly-room for the exclusive use and recrea-

tion of the students when not on duty. The laboratories are fitted with the most approved appliances for work and instruction in the several departments of dentistry. Compressed air is supplied to the laboratory tables for melting and soldering operations, as well as for metallurgical work. The laboratory lathes are driven by electric motor, and no feature which could add to the facilities for thorough and accurate work has been omitted.

The lecture amphitheatre will comfortably seat 550. It joins the main building by a corridor, and in relation with it are arranged the dental museum and library.

As the laboratory, or manual-training method forms a prominent and necessary adjunct to didactic teaching, facilities for carrying out the technic system of instruction are provided in connection with each subject to which the system is applicable.

ADMISSION.

The courses in Dentistry are not open to women.

Special attention is called to the rule requiring all applicants for matriculation to be present and enter their names not later than October 10th following the official date of opening, with the understanding, however, that in case of delayed matriculation the practical work scheduled for the period ending October 10th must be made up at the expense of the student.

Candidates for admission will not be permitted to matriculate for any session other than that immediately succeeding the date of matriculation. No candidate will be allowed to matriculate for more than one session at a time.

PRELIMINARY EDUCATIONAL REQUIREMENTS.

For the Session 1911-12 the minimum educational standard for unconditioned matriculation is 60 counts based upon the subjects specified on the next page of this catalogue or upon the equivalent of these counts in High School subjects attested by certificates or diplomas issued by approved High Schools or literary colleges. Applicants may be admitted upon a minimum of 45 counts upon the condition that 15 additional counts shall be made up before entrance upon the second year of the course.

An applicant whose credentials do not fully meet the requirements outlined above, or who does not pass the entrance examinations with a percentage of 70 in every subject, may be admitted on condition that he make up the required work in any branch or branches (not exceeding 15 counts) as specified on the next page.

ENTRANCE SUBJECTS.

Coun	ts	Counts.
4	First Year English	2 Trigonometry
3	Grammar, Rhetoric, and	5 Physics
	English Reading	5 Chemistry
5	First Year Latin	5 American History and
5	Latin Grammar, and Cæsar	Civics
	(four books)	2 History of Greece and
5	First year German, French	Rome
	or Spanish	3 European History
2	Advanced Arithmetic (in-	3 English History
	cluding Metric System	2½Elementary Botany
	and Mensuration)	2½Elementary Zoölogy
5	Algebra through Quadratics	3 Advanced Drawing
2	Intermediate Algebra	2 Shop work (in Manual
5	Plane Geometry	Training School): second

The count values above specified are based upon work throughout a standard academic year consisting of thirty-eight weeks. Additional work will receive additional count credit.

year (2)

In lieu of a diploma or certificate, covering the above specified requirement, the applicant will be required to pass a matriculate examination, which shall be the equivalent of that forming the basis of the entrance standard of preliminary education.

To assist the candidate in preparing for the entrance examination, the following studies are recommended, each representing one year's high school work:

LANGUAGE (9 counts).

English (4 counts).

2 Solid Geometry

- (a) Grammar:—Parts of speech and their properties; declension; comparison; conjugation; general rules of syntax; analysis; parsing; meaning of words; paraphrasing; elements of rhetoric.
- (b) Composition:—Special attention must be paid to spelling, punctuation, capitalization, matter and structure; paraphrasing; unity and coherence.

Text Books:—Reed & Kellogg, Higher Lessons in English; Woodley, Foundation Lessons in English Grammar.

(c) English Reading:—College entrance requirements, viz.: A general knowledge of the following works:

Shakespeare, The Merchant of Venice and Julius Cæsar; The Sir Roger de Coverley Papers in The Spectator; Goldsmith, The Vicar of Wakefield; Scott, Ivanhoe; Coleridge, The Rime of the Ancient Mariner; Carlyle, Essay on Burns; Tennyson, The Princess; Lowell, The Vision of Sir Launfal; George Eliot, Silas Marner.

A special knowledge of the subject-matter, form and structure of the following works: Shakespeare, Macbeth; Milton, Lycidas, Comus, L'Allegro and Il Penseroso; Burke, Speech on Conciliation with America; Macaulay, Essays on Milton and Addison.

Latin (5 counts). First year high school course.

- (a) Grammar:—Accentuation; rules for gender; declension of regular nouns, pronouns and adjectives; comparison of adjectives and adverbs; conjugation of regular verbs; general rules of syntax.
- (b) Vocabulary exercises and translations of easy sentences and selections into English and into Latin.

Text Books: -- Bennett, Foundations of Latin; Collar & Daniell, First Year Latin.

Note:—In lieu of Latin, the applicant may elect an equivalent in one year's course in German, French or Spanish.

Text Books:—Collar, First Year German; François, Beginners' French; De Torne, Combined Spanish Method.

MATHEMATICS (12 counts).

Arithmetic (2 counts). The fundamental operations; fractions; decimals; compound numbers; interest; ratio and proportion; square and cube root; metric system; elementary mensuration; series.

Text Books:—Brooks, Normal Standard Arithmetic; Gideon, Model Complete Arithmetic.

Algebra (5 counts). The fundamental operations; factoring; fractions; equations of one or two unknowns; ratio and proportion; the simpler forms of radicals and of quadratics; binomial theorem.

Text Books:—Wentworth, Short Course in Algebra; Brooks, Elements of Algebra.

Plane Geometry (5 counts). Usual definitions, theorems, constructions and demonstrations; general principles of plane rectilin-

cal figures; measurement of angles; similar polygons; areas; regular polyglons; the circle; simple original problems.

Text Books:—Phillips & Fisher, Plane Geometry; Brooks, Plane Geometry.

HISTORY (10 counts).

(a) History and Constitution of the United States and Civil Government (5 counts). The most important discoveries and settlements; the struggles of European nations for mastery in America; the Revolution; the leading events under the successive administrations; the War of 1812; the Mexican War; the Civil War—the causes, most important campaigns, result; the general development of our nation in extent, population, industries and power.

The causes leading to the adoption of the Constitution; the most important features; the general principles of our government; the legislative department, the executive, the judicial, with their general duties and powers.

Text Books:—McLaughlin, History of the United States; Eggleston, School History of the United States and its People.

Civil Government: - McCleary or equivalent.

(b) History of Greece and Rome (2 counts). The most important political events; the prominent features of civilization; the most striking manners and customs of the people.

Text. Books: - West, Ancient History; Myers, Ancient History.

(c) History of England (3 counts). Britain; Saxon England; Norman England; England under Plantagenets and Tudors; Puritan revolution; constitutional monarchy; British Empire.

The most important political events; development in civil and religious liberty and in civilization and literature; increase in extent of territory and in world influence.

Text Books:—Montgomery, Leading Facts of English History; Walker, Essentials of English History; Cheney, Short History of England.

Science (5 counts).

Elementary Physics (5 counts). Matter and its general properties; mechanical powers; pneumatics, hydrostatics; heat, sound, light; magnetism and electricity; simple experiments.

Text Books:—Gage, Elements of Physics; Carhart & Chute, High School Physics.

Note:—In lieu of Physics, the applicant may elect an equivalent in one year's course in Chemistry.

Text Books:—Bradbury's Elementary Chemistry; Remsen, Elementary Course in Chemistry.

Second Year English (3 counts).

(a) Grammar (continued):—Composition and rhetoric.

Text Books:—Hill, Elements of Rhetoric and Composition; Thorndike, Elements of Rhetoric and Composition.

(b) Literature. DeCoverly papers, Pilgrim's Progress, Franklin's Autobiography, As You Like It, Twelfth Night, Merchant of Venice, Silas Marner, Vicar of Wakefield, House of Seven Gables, Deserted Village, Rape of the Lock, Palgrave's Golden Treasury (Books II and III).

Second Year Latin (5 counts).

Grammar. Easy composition, Cæsar (4 books).

Text Books:—Bennett, Latin Grammar; Mitchell, Essentials of Latin; Cæsar, Commentaries, any standard edition.

Note:—In lieu of Latin the applicant may elect an equivalent course in German, French or Spanish.

Intermediate Algebra (2 counts). Imaginary quantities, evolution, quadratics, progressions.

Text Books:—Wells, Essentials of Algebra; Milne, High School Algebra.

Solid Geometry (2 counts). Usual theorems, constructions and demonstrations; properties and measurement of prisms, pyramids, cylinders and cones; surfaces and volumes of solids; the sphere and the spherical triangle; simple original problems.

Text Books:—Brooks, Solid Geometry; Wells, Solid Geometry.

Plane Trigonometry (2 counts). Definitions and relations of the six trigonometric functions as ratios; circular measurements of angles; proof of principal formulæ; simpler uses and theories of logarithms; applications.

Text Books:—Brooks, Plane Trigonometry; Wells, Plane Trigonometry.

European History (3 counts). Carlovingian empire, feudalism (10th century); the Papacy and German-Roman empire (to 13th century); formation of France to 1328; the East and the crusades

(1096-1270); Christian and feudal civilization; the Renaissance (14th and 15th centuries); Protestant revolution and wars of religion (1527-1648); France and age of Louis XIV; Russia and age of Frederick the Great; French Revolution; age of Napoleon (1795-1815); growth of nationality, democracy and liberty in the 19th century.

Text Books:—Myer, General History; Fisher, General History.

Elementary Botany (2½ counts). Seeds and seedlings; roots, stems, buds, flowers, fruits; mosses and ferns; algæ and yeast; general function and structure of parts; life history; experiments.

Text Books:—Andrews, Botany all the Year 'Round (without flora); Bergen, Elementary Botany.

Note:—An equivalent course in elementary zoölogy will be accepted in lieu of botany.

Advanced Drawing (3 counts). Freehand and Mechanical.

Manual Training School Shopwork (2 counts).

Other text books than those named may be used, provided they cover the subjects to the extent indicated.

Other subjects than those named in the lists preceding will have full credit-counts given to them, provided they represent a year's work in the course of a high school or equivalent school or institution.

ENTRANCE EXAMINATIONS.

Registration cards and permits for the entrance examination must be first obtained from the office of the Dean of the School of Dentistry in Dental Hall, Thirty-third and Locust streets, Philadelphia.

A registration fee of five dollars is required of all candidates for scholarship and entrance examination, and is not returnable in case of failure to pass.

The entrance examinations for the session of 1911-12 will be held in Southern High School Building, Broad and Jackson Streets, Philadelphia, on the following dates: Thursday, Friday and Saturday, June 1, 2, 3, 1911, at 2.30 P. M., and on Thursday, Friday and Saturday, September 21, 22, 23, 1911, at 2.30 P. M.

Regents' Academic Counts are required from students entering from New York State.

ADMISSION TO ADVANCED STANDING.*

Students possessing the requisite preliminary education and who have attended one full term in a dental school recognized by this University, will be admitted to the second year, subject to the rules governing admission to advanced standing.

Graduates of a recognized medical school will be admitted to the Second-year Dental Class without examination.

Applicants for advanced standing, who have not had instruction in Practical Histology and Practical Chemistry equivalent to that required by this department, will be permitted to make up such deficiency by taking special courses, for which an extra fee of fifteen dollars is charged for each branch. Classes for special courses in these branches are organized during the second week in September for the benefit of those desiring to take the laboratory work before the work of the regular session.

Students who have credit for the completed work of two or more terms in a recognized dental school, and who possess the requisite preliminary educational qualifications, are eligible for admission to the third year, subject to the rules governing admission to advanced standing.

Graduates of foreign dental schools are required to conform to the rules governing preliminary educational qualifications as well as the rules governing advanced standing, and their credentials must have been satisfactorily authenticated before they can be accepted.

SCHOLARSHIPS

I. University Scholarships.—The Trustees have established two University Scholarships in Dentistry, the award of which is based upon the result of a competitive examination equivalent to that demanded for admission to the technical courses in the College. They are not awarded for less than the entire course.

Examinations for these scholarships are held on the same day with those fixed for entrance to the College (Thursday, September 21, 1911, at 9 o'clock, A. M.), and are open to all applicants otherwise eligible for admission to the School of Dentistry. Circulars setting forth in detail the plan of the scholarship examination may be had upon application to the Dean of the School of Dentistry.

^{*} All applicants for advanced standing must pass the examinations of the years they desire to omit, or furnish proof that they have passed *equivalent* examinations in some recognized dental or medical school.

2. Philadelphia Free Scholarships.—Under an agreement with the city of Philadelphia, fifty free scholarships exist in the University for the benefit of graduates of the public schools. The candidates for these scholarships are examined by the Board of Public Education, and award is made to those who reach the highest grade, as vacancies occur from year to year.

Under another agreement with the city of Philadelphia, seventyfive free scholarships exist in the University for the benefit of graduates from local schools in general. Information regarding the latter scholarships should be obtained from the Mayor's Office.

STATUS OF STUDENTS.

A regular student is one who is regularly admitted to the School, and who is a candidate for the degree of D. D. S.

A special student is one who is regularly admitted to the School for partial courses, but who, not being a candidate for the degree, does not take the regular course. The admission of special students is at the discretion of the Dean.

SPECIAL COURSES.

The School offers special courses of instruction in any or all of the branches of the curriculum. Such courses are elective and do not lead to the dental degree. The fees for the special courses are \$50.00, \$100.00 or \$150.00, depending upon whether the student remains under instruction for three months, six months or the entire session respectively. These course fees are in all cases additional to the regular matriculation fee of \$5.00.

HOUSTON CLUB AND GYMNASIUM.

A uniform charge of \$10.00 a year is made upon all students, to include membership in Houston Club with all of the usual club privileges, and the use of the gymnasium and its facilities, including locker and the use of Franklin Field, excepting only at such times as the Field may be in use by athletic teams.

PHYSICAL EDUCATION.

In the School of Dentistry two hours a week of graded physical education is an obligatory part of the curriculum for all students of the first year, excepting those who have previously had an equivalent course of physical training elsewhere and those who for this or by reason of physical disability may be excused by the Director.

ARRANGEMENT OF SESSION.

The academic year consists of one session beginning on the last Friday in September, and ending at Commencement, on the third Wednesday in June. The course of instruction is graded.

Laboratory instruction, not only in all of the practical dental branches, but also in Practical Chemistry, Metallurgy, Histology, Bacteriology, Physiology and Osteology, forms a prominent feature of the course.

The session of 1911-12 will begin on Friday, September 29, 1911.

MID-TERM EXAMINATIONS.

The arrangement of subjects constituting the curriculum of the first, second and third years as specified here and on page 29, et seq., is provisional only, and subject to change before the opening of the following session.

In the first-year course final examinations are held about February I in Chemistry, Histology and Elementary Anatomy.

In the second-year course, at the same date, final examination is held on Elementary Physiology and a progress examination on Applied Anatomy.

In the third-year course final examinations are held at mid-term in Metallurgy, Crown-and-Bridge Work, Dental Ceramics, Anesthe sia, Orthodontia, and a progress examination in Oral Surgery.

RULES GOVERNING MID-TERM EXAMINATIONS.

I. Non-Presentation and Failures.

A student who has not undergone examination, or who has failed to attain a mark of 50 in any examination, may be re-examined:

- (a) At the first re-examination about March 1; or, failing then
- (b) At the second re-examination about one week prior to the final examinations of the academic year in May.

2. FAILURE TO MAKE A GENERAL AVERAGE OF 60.

A student having passed all the examinations, but failing to attain a general average of 60, may avail himself of the privileges of the re-examinations at the times designated in paragraph 1, in all of the subjects in which a mark of less than 60 was attained.

3. ELIGIBILITY FOR FINAL EXAMINATIONS IN MAY.

All the mid-year examinations must be passed before the candidate becomes eligible for the final examinations for the academic year, held in May.

4. REPETITION OF THE STUDIES OF THE YEAR.

The general rules governing the repetition of the studies of any year shall apply to those students who failed to pass or to attain the required general average, or who were eligible to appear at the final examinations of the academic year, held in May.

RULES GOVERNING TERM EXAMINATIONS.

FIRST AND SECOND YEAR STUDENTS.

- 1. The examination marks are based on a scale of 100. Each student must obtain a general average of 60 to pass the examinations of the year. 50 will constitute a pass mark on a single branch, less than 50 constitutes a failure in that branch.
- 2. Students who have failed to pass in any or all of the branches are given an opportunity for a second examination, before the opening of the next regular session, on the stated day in September designated for re-examinations in the official calendar in this Catalogue; but if the student fail to appear, or if his general average be less than 60, he shall repeat the studies of the year except those in which he received a grade of not less than 70.
- 3. A student may be permitted to matriculate in the succeeding year, if he has successfully passed all but one branch, on condition that the one in which he has been found deficient must be passed on or about October 15 of the year in which he has been matriculated. Failing at the October examination to pass the branch in which he is conditioned, the student will be required to repeat the work of the year as provided in Rule 2. This rule applies to laboratory and clinical requirements as well as to didactic work.
- 4. No student will be eligible for examination if any portion of his fees remains unpaid.

EXAMINATION FOR GRADUATION.

- I. The examination marks shall be upon a scale of 100.
- 2. Each candidate must attain at least 50 in any single branch,

and have a general average of 60, before he can be recommended for graduation.

- 3. Candidates who attain a general average of at least 90 shall be considered to have gained Honors of the first class, and will receive Honorable Mention.
- 4. The graduation average shall be based on the examination marks of the whole curriculum.
- 5. Examinations are held immediately after the completion of the lecture courses.

No student can be examined before that time except by consent of the Faculty.

GRADUATION.

At the close of the course, a student who has fulfilled all requirements satisfactorily receives the degree of *Doctor of Dental Surgery* (D. D. S.), under the following regulations:

- I. He must be of legal age and of good moral character.
- II. He must have passed a satisfactory examination in all the branches of the curriculum; must have attended the practical instruction and performed the required practical work in all departments; and his last year of instruction must have been at the School of Dentistry of this University.
- III. He must have dissected at least two parts; must have performed thoroughly, and to the satisfaction of the Professor of Operative Dentistry, all the usual dental operations; must have undertaken at least one artificial case comprising a full upper and lower denture, and brought it completed, with the patient, to the Assistant Professor of Mechanical Dentistry, before the fifteenth day of May; and must have prepared for presentation to the Professor of Mechanical Dentistry, before the fifteenth of May, a specimen case to be deposited in the University collection. The required operations, as well as the work on the artificial case, must have been performed in Dental Hall.
- IV. After receiving notice of having successfully passed the final examination, he must enter his name on the Register of Candidates for the Degree.
- V. He must be present at Commencement, unless excused by the Dean of the Faculty.

TEXT-BOOKS AND WORKS OF REFERENCE.*

Text-Books.

Works of Reference.

Operative Dentistry:

Book of Operative Dentis- of Filling Teeth.

Kirk, the American Text- Johnson, Principles and Practice Kingsley, Oral Deformities.

Mechanical Dentistry and Metallurgy:

Turner, The American Text-Book of Prosthetic Dentis-

Essig-Koenig, Dental Metallurgy.

Dental Pathology and Therabeutics:

Burchard-Inglis, Dental Path- Adami, General Pathology. ology, Therapeutics and Pharmacology. (Second edition.)

Materia Medica:

and Therapeutics.

Prinz, Dental Materia Medica Wood & Bache, United States Dispensatory.

> Pharmacopæia of the United States

Orthodontia:

Angle, Treatment of Malocclusion of the Teeth and Fractures of the Maxilla

Chemistry:

Richter, Inorganic Chemistry. Mitchell Dental Chemistry. Alex, Smith, General Inorganic Chemistry.

Medicus, Qualitative Analysis. (Seventh edition.)

Histology:

Piersol, Normal Histology.

Anatomy:

Black, Dental Anatomy.

Piersol, Human Anatomy. Cunningham, Human Anatomy. Tomes, Dental Anatomy.

Long, Dental Materia Medica.

^{*}In all cases the latest editions should be obtained.

Text-Books.

Works of Reference.

Dissection Manual:

Cunningham, Practical Anatomy.

Applied Anatomy:

Cryer, Studies of the Internal Anatomy of the Face.

Physiology:

Stewart, Manual of Physi- Howell's, Physiology.

Oral Surgery:

Von Bergman, A System of Marshall, Injuries and Surgical Practical Surgery. Vol. I. Diseases of the Face, Mouth and Jaws.

Bacteriology:

Abbott, Principles of Bacteri- Miller, Micro-Organisms of the ology.

Human Mouth.

Dictionary:

Gould, Students' Medical Dictionary or Dorland's.

ROSTER.*

FIRST-YEAR CLASS.—SESSION 1910-11. Order of Instruction before February 1.

Hour.	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	CORNELL. Osteology and Syndesmology.		Class divided into Sections	Class divided into Sections for Instruction in Prosthetic and Operative	TURNER. Prosthetic Dentistry.	Dental Anatomy and Modeling Tooth Forms
	MARSHALL. Chemistry.	MARSHALL. Chemistry.	for Instruction in Prosthetic and Operative		Class divided into Sections	
	Physical Education.	Prosthetic and Operative Technics.	Technics.	Technics.	for Instruction in Prosthetic and Operative Technics.	Tooth Torms
to 4 P. M.	in Chemistry	in Chemistry	Class divided into Sections for Pract.Work in Chemistry and Histology.	in Chemistry	3 P. M. Physical Education.	
4 P. M.	DORRANCE. Anatomy. Rtations.	DORRANCE. Anatomy Recitations.	MARSHALL. Chemistry.	PIERSOL. Anatomy.	PIERSOL. Anatomy.	
5 P. M.						

ROSTERS 29

SECOND-YEAR CLASS.—SESSION 1910-11. Order of Instruction before February 1.

Ho	ur	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9 A.	M.	GRITMAN. Prosthetic Technics.	Section Work in Prosthetic Deutistry, or Crown and	Section Work	Section Work	Section Work	Operative Clinic.
10 A.	. м.	Section Work in Prosthetic	Bridge Work, or Operative Clinic.	in Prosthetic Dentistry, or Operative	Dentistry, or Crown and Bridge Work, or Operative Clinic.	Dentistry, or Crown and Bridge Work, or Operative Clinic.	
11 A.	м.		ABBOTT. Bacteriology.	Clinic.			
12 7	۸۱.		KIRK. Dental Pathology and Therapeutics.	CRYER. Oral Surgery.			GRYER. Oral Surgery.
1.3 to 4 P.)	Physiology Demonstration or Operative Clinic.	Physiology Demonstration or Operative Clinic.	Operative Clinic.	Operative Clinic.	Operative Clinic.	
4 P.	М.	REICHERT. Physiology.	REIGHERT. Physiology.		REIGHERT. Physiology.	REICHERT. Physiology.	
5 P.	М.		DARBY. Operative Dentistry.	TURNER. Prosthetic Dentistry.	DARBY. Operative Dentistry.	KIRK. Materia Medica.	

THIRD YEAR CLASS.—SESSION 1910-11. Order of Instruction before February 1.

The state of the s						
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9 A. M.	Operative or	CAPON. Dental Ceramics.	WEEKS. Orthodontia.	GRITMAN. Prosthetic Technics.		
10 A. M.	Prosthetic	Operative or Prosthetic Clinical Pract.	Operative or Prosthetic Clinical Pract.	Operative or Prosthetic Clinical Pract.	Operative or Prosthetic Clinical Pract.	Operative Clinic.
II A. M.	o .	Crown and Bridge Work.		Crown and Bridge Work.	Crown and Bridge Work.	-
12 M.		KIRK. Dental Pathology and Therapeutics.	GRYER. Oral Surgery.	PEESO. Crown and Bridge Work.	Swing Anaesthesia	GRYER. Oral Surgery.
2 to 5 P. M.	Operative Clinic, Orthodontia, Inlay Work, Practical Metallurgy.	Operative Clinic, Orthodontia, Inlay Work, Practical Metallurgy.	Operative Clinic, Orthodontia, Inlay Work, Practical Metallurgy.	Operative Clinic, Orthodontia, Inlay Work, Practical Metallurgy. Ceramics.	Operative Clinic, Orthodontia, Inlay Work. Ceramics.	
5 P. M.	TURNER. Orthodontia.	DARBY. Operative Dentistry.	TURNER. Prosthetic Dentistry.	DARBY. Operative Dentistry.		

Medicai and Surgical Clinics at the University Hospital are held from 12 M. to 2 P. M., on Wednesdays and Saturdays, and are open to the Second and Third-year Classes. These are in addition to the dental clinics at the Philadelphia Hospital, on Saturdays at 12 o'clock, and to the Oral Surgical Clinics as noted on the roster.

OPERATING-ROOM, LABORATORIES, ETC.

The operative clinic room and laboratories are spacious and well equipped, affording ample facilities for the practical training of the student.

The dissecting-room is large, well lighted, thoroughly ventilated, and furnished with ample material for the successful prosecution of anatomical studies.

GRADATION OF THE COURSE.

In order to facilitate work in the practical branches, and to economize the student's time, the regular session is so arranged that students during the first year are required to devote the time equally to dental, histological and chemical laboratory work.

During the second and third years, the student has practically the entire forenoon of each day for dental work. Thus ample opportunity is afforded for practice in Operative and Mechanical Dentistry. In the latter branches, the students are divided into sections, devoting the time not otherwise engaged to practice in the operating-rooms.

This plan of gradation enables the First-year student to present himself for examination in the following branches: Chemistry, Histology and Anatomy, including Osteology and Myology, and on Progress in Mechanical Dentistry, Operative Technics and Materia Medica. The Second-year student will be examined on Materia Medica, Bacteriology, Applied Anatomy and Physiology, and on Progress in Operative and Mechanical Dentistry. Such an arrangement is economical not only in point of time, but also in facilitating a student's acquirement of knowledge in the remaining branches.

OUTLINE OF THE COURSE.*

FIRST YEAR.

Students of the First-year Class will be required to attend instruction in and pass examinations upon the following branches:

1. Chemistry. Three lectures a week. Five hours laboratory.

^{*} See first paragraph under Mid-Term Examinations, p. 521.

- 2. Anatomy. Two lectures and two recitations a week. One-half the required work in dissecting is done during this year.
- 3. Histology. Five hours laboratory a week.
- 4. Osteology. One lecture a week.
- 5. Materia Medica. One lecture a week.
- 6. Students of the First-year Class will be trained in Operative and Mechanical Technics during hours not otherwise occupied.
- 7. They will, in addition to the subjects named, attend lectures on Operative and Mechanical Dentistry. Each one hour a week.
- 8. Physical Education. Two hours a week.

SECOND YEAR.

- Students of the Second-year Class will attend lectures on Materia Medica, Physiology, Operative and Mechanical Dentistry and Metallurgy, Dental Pathology and Therapeutics, Bacteriology, Applied Anatomy and Oral Surgery. Work in Practical Anatomy (dissecting) is finished during this year.
- 2. They will pursue Operative and Mechanical Work, with the privilege of the operating-room and appliances during the morning and afternoon clinics.
- 3. The final examinations of the second year will be upon Materia Medica, Physiology, Bacteriology, Applied Anatomy and Progress in Operative and Mechanical Dentistry.

THIRD YEAR.

- Students of the Third-year Class will continue the practical work in Operative Dentistry, Mechanical Dentistry and Dental Metallurgy, and the lectures on these subjects, together with Dental Pathology and Therapeutics, Oral Surgery and Orthodontia.
- 2. Examinations at mid-term of the third year will be held upon one-half of the subject of oral surgery and upon the following minor subjects: Dental Metallurgy, Ceramics, Crown-and-Bridge Work, Orthodontia and Anesthesia.
- At the close of the term, examinations will be held upon Operative Dentistry, Prosthetic Dentistry, Dental Pathology and Therapeutics, and Oral Surgery.

COURSE OF INSTRUCTION.

The lectures on operative dentistry and dental histology embrace the comparative anatomy of the teeth; the functions and microscopical peculiarities of the dental organs; the development of teeth and their component tissues; a full description of the elucidation of all dental operations, such as filling, extracting and regulating; the pathological relations of the teeth to the other parts of the system; and a minute description of all diseases related to dental surgery or of interest to the dentist. The methods taught are demonstrated in clinics.

The course of instruction in MECHANICAL DENTISTRY is a graded one, and is arranged to embody in the teaching of the first year the fundamental principles of prosthetic work, including the properties of the materials used for prosthetic purposes and the various mechanical processes involved in their utilization; in the second year a more specific and extended instruction in these procedures is given, and the finger-skill necessary in the usual mechanical operations is developed; while in the third year the student is instructed in the choice of means for attaining a given end, and the selection of this means in accordance with the requirements of specific cases. During the third year attention is given to the more highly specialized branches of Prosthetic Dentistry under qualified demonstrators.

Instruction in Mechanical Dentistry is accomplished by the didactic lectures illustrated by means of heroic models, lantern slides, and blackboard drawing; by graded technic courses, which include in each year illustration of the lecture topics by actual demonstration of the processes before the class, and the manufacture of the appliances so illustrated by the class, divided into small sections for systematic work; by specimens on exhibition in the general laboratory illustrative of successive stages in the technic requirements; and by abundant clinical practice.

The lecture course will include, in addition to dental prosthesis the replacement of tissues about the mouth not strictly dental, and the manufacture of appliances for the remedy of palatal defects.

The instruction in ORTHODONTIA will be by means of lectures, quizzes, a technic course and clinical practice; and attention will be specially paid to the treatment of cases in the light of their etiology.

The lectures on CHEMISTRY embrace the study of chemical physics and principles of chemical philosophy, together with a detailed consideration of the principal elementary substances and their compounds; and of the fundamental principles of Organic Chemistry, including the classification of organic compounds, and the special study of typical members of the different classes. Special attention is also given to the laws of chemical affinity, and the conditions under which they are modified, especially as they relate to the preparation of mixtures and prescriptions.

The course in practical chemistry in the laboratory includes exercises in chemical manipulation; the study of the chemical properties of the principal metals; the reactions of acids and their combinations; and the general principles of qualitative analysis, especially as they relate to the detection and separation of the metals and compounds of interest to practitioners of Dentistry. Each student is provided with a separate table and apparatus, and is required to perform all the usual chemical manipulations under the directions of demonstrators, as well as to exhibit by written formulæ all reactions involved in his tests.

HUMAN ANATOMY is taught in its relations to all the branches of medical science, including Dentistry. The lectures are illustrated by fresh dissections of the human body, and by a rich museum of anatomical specimens, well-executed models and drawings.

In addition to the lectures and demonstrations by the Professor of Anatomy, a course of demonstrations in Applied Anatomy is given to the students of the second year. The course consists of a drill by recitations and demonstrations of dissections upon those anatomical regions with which the dental and oral surgeon is especially concerned. Practical instruction in general and special HISTOLOGY will be given in the histological laboratory to the students of the first year, the class being divided into sections. The laboratory is furnished with excellent microscopes, and all apparatus necessary to enable the student to become familiar with the most approved methods of microscopical technology and with the minute structure of all the tissues and organs. Special facilities are afforded for original research; for this purpose the laboratory is open throughout the year, except during July and August.

The OSTEO-SYNDESMOLOGICAL LABORATORY is under the supervision of the Professor of Anatomy and Demonstrator of Osteology. In this laboratory, the first-year student is required to make himself familiar with the skeleton and the articulations as a part of his instruction in practical anatomy.

The course in Physiology includes thorough instruction on the

subject of animal physiology, with special reference to the physiology of Man.

The lectures on DENTAL PATHOLOGY include such portions of general pathology as have a bearing upon the special subjects taught.

Dentition and its possible pathological results receive careful attention, followed by a detailed consideration of all the diseases to which the teeth and surrounding parts are liable; the normal and abnormal character of the oral secretions, and the direct and remote relations that the pathological conditions of the mouth sustain to other portions of the system.

The treatment required under each head is explained, and the recognized processes necessary to secure a return to normal conditions are minutely detailed.

Materia Medica is taught with special reference to the character and value of those remedies which have any bearing upon dental therapeutics.

Bacteriology.—The study of bacteriology is an obligatory part of the second year curriculum. The growing importance of this subject in relation to dental pathology and therapeutics has made necessary certain modifications in the technique of nearly all dental operations. A clear understanding of the practical bearing of bacterial life-processes has become a necessity for intelligent and successful dental practice, just as it has similarly for surgical practice.

The course is so arranged with respect to the requirements of the dental practitioner that he will afterwards be able not only to apply correctly the most approved methods for preventing and combating bacterial action, and to develop an efficient system of antiseptic technique in connection with his work; but he will also be trained in the several methods that will enable him to study the bacterial factor which is the exciter of pathological conditions in special cases arising in his practice.

The instruction in BACTERIOLOGY, which is under the direction of Dr. A. C. Abbott, Professor of Bacteriology and Director of the Laboratory of Hygiene, is principally practical and embraces full laboratory instruction, covering the following subjects:

- Apparatus employed—sterilizers, incubators, pressure regulators, thermostats, etc.
- 2. Culture media, methods of preparation, sterilization methods.
- Microscopic characteristics of cultures of bacteria in general and of special forms.

- 4. Methods of obtaining, from mixtures of different bacteria, individual species in pure cultures.
- Microscopic technique. Use and care of instruments, staining from cultures, section cutting and staining and mounting of tissues.
- 6. Pathogenic bacteria isolation, identification and inoculation.
- 7. Disinfection of instruments, appliances, etc., thermal and chemical, methods and apparatus, modes of testing efficiency.
- 8. Antisepsis and asepsis in dental surgery, preparation of dressings, instruments, operator and assistants and of patients.

Following this, the special study of Bacteriology in relation to dental pathological conditions will receive full consideration and elaboration. The classification, life-history, modus of infection and pathological significance of all bacterial forms having distinct dental importance will be studied in detail.

The lectures on these subjects are appropriately illustrated, and accompanied by suitable demonstrations whenever possible. The Laboratory of Hygiene has a thoroughly equipped department for practical instruction in Bacteriology, including an ample number of high-grade microscopes for the special use of dental students in the study of this branch. Examination upon the subject will be a prerequisite to the obtaining of the dental degree.

ORAL SURGERY is a specialty which is a distinct outgrowth from Dentistry. As the work of the dentist came to include operations upon the surrounding tissues, as well as upon the teeth themselves, the adoption of surgical methods and more thorough training in the principles and practice of surgery became necessary. The addition of instruction in this branch to the dental curriculum includes thorough instruction in the surgical and pathological anatomy of the mouth, jaws, and associate parts; the etiology, diagnosis and treatment of lesions of these parts; the most advanced methods of operative technique, including the use of the surgical engine, surgical anesthesia, asepsis and antisepsis, and after-treatment of the case.

The instruction is both didactic and clinical, and students are encouraged to study and personally treat cases under the supervision of the Professor of Oral Surgery and his assistants.

Special facilities for the performance of oral surgical operations and for the care of patients are provided in the University Hospital and the Philadelphia Hospital.

CLINICAL PRACTICE.

Seven hours daily (except on Saturdays) are spent in actual practice under the supervision of the demonstrators; on Saturdays from 9 A. M. to 12 M. Every student is required to provide his own instruments, except those for extracting. He is expected to keep them in perfect order, and will be furnished with a place in which they can be locked when not in use.

INFIRMARY AND LABORATORIES.

The Infirmary and Laboratories are open to the students for practive every day during the week, except on Saturday afternoons, which are reserved for clinics that may be given by members of the Faculty or instructors.

The Infirmary and Laboratories are open throughout the year, except during July and August.

THE DENTAL GRADUATE SCHOOL.

The Dental Graduate School of the University of Pennsylvania offers facilities for advanced instruction in the various departments of dental Science and Art, including advanced Crown and Bridge Work; Inlay and Ceramic Work; Operative Technic; Dental and Oral Prosthesis; Dental Bacterio-Pathology including Sialosemeiology; Orthodontics; Dental and Oral Prosthesis, and Dental Jurisprudence.

The courses are open only to graduates of recognized dental educational institutions.

For detailed information respecting any of the courses offered in the Dental Graduate School, application should be made to Dr. A. C. Eglin, Secretary, 3340 Walnut street, or to Dr. Edward C. Kirk, Dean.

MUSEUM AND CABINETS.

The Wistar and Horner Museum, founded about one hundred years ago, and annually augmented, is unequaled in the United States for the number and variety of its specimens of the normal and the morbid anatomy of the human body. It also contains a large number of preparations in Comparative Anatomy; a rich collection relating to Dentistry, such as the different stages of dentition, abnormal conditions of the teeth, mandibles of the lower animals, etc.; and an extensive collection of models. This collection is deposited in the building opposite Logan Hall, erected by the late General

Isaac J. Wistar, and called the WISTAR INSTITUTE OF ANATOMY AND BIOLOGY. The Museum is open every week-day, excepting holidays, from 9 A. M. to 4 P. M., throughout the sessions. The matriculation fee in the School of Dentistry confers admission to the Museum.

TUITION FEES AND EXPENSES.*

The tuition fee is \$150 per annum and is due and payable in advance in two equal parts, on October 1 and February 1, respectively. Remittances should be in cash, or by bank draft, certified cheque, or postal money order drawn for the exact amount due, made payable to the University of Pennsylvania, and paid to W. O. Miller, Bursar, Room 102, College Hall. For detailed rules concerning payments see Part V.

A matriculation fee of \$5.00 must be paid by all new students, whether previously registered in the University or not.

The matriculation fee must be paid in person and not forwarded in advance.

Under no circumstances are any changes made in the established fees.

Every student shall, upon entering the University, make a deposit of \$5.00 to cover loss, damage, or breakage of University property, library fines, or any charge not paid by the student in some other way. A student whose deposit is by charges against it reduced to \$2.50 or less shall be required to pay a sum sufficient to restore the deposit to its original amount. No deposit or balance remaining on a deposit shall be finally repaid to a student until he shall have been graduated or shall have formally withdrawn from the University.

Students of the School of Dentistry may attend, without additional charge, the lectures and recitations in any other department of the University. This privilege may be obtained only by the concurrent approval, in writing, of the respective Deans.

Instruments for the first year can be procured at from \$60 to \$75. A dental engine will be needed for the second year, costing from \$40 to \$60. Additional instruments will be required for the second-year and third-year work. These instruments may be utilized in general practice.

Rooms may be had at the University Dormitories or in houses near the University, and board may be had in private boarding

^{*} For Estimate of Expenses, see pp. 536-537.

houses in the immediate vicinity of the University. In any case the cost of board and lodging will be from \$5.00 a week upward.

Dental Hall is provided with locker facilities for the storage of instruments, apparel, etc. It is to be understood, however, that the lockers are provided solely as an accommodation, and that in renting them to the students the School assumes no responsibility whatever with respect to the care or loss of the contents.

First Year.

Matriculation Fee (paid once only)\$5 oc	,
Tuition Fee 150 oc)
Gymnasium and Houston Club Fee 10 00)
Fee for Dissection 5 oc)
Use of Dissecting Material (one part) 1 50)
Breakage Deposit 5 oc)
Second Year.	
Tuition Fee\$150 oc	,
Gymnasium and Houston Club Fee 10 00	
)
Gymnasium and Houston Club Fee 10 00)
Gymnasium and Houston Club Fee 10 00 Fee for Dissection 5 00 Use of Dissecting Material (one part) 1 50 Third Year.	
Gymnasium and Houston Club Fee 10 oc Fee for Dissection 5 oc Use of Dissecting Material (one part) 1 50	
Gymnasium and Houston Club Fee 10 00 Fee for Dissection 5 00 Use of Dissecting Material (one part) 1 50 Third Year.	

Further information may be obtained from

EDWARD C. KIRK, Dean.

The Dean's office is in Room 39, Dental Hall, Thirty-third and Locust streets. Office hours: 9 A. M. to 1 P. M., daily.

The total number of new matriculates for the present session, including those admitted to advanced standing, is 209.

Since the foundation of this School, the total number of graduates has been 2675.

The subjoined reports give some conception of the character and mass of work performed in the Operative and Prosthetic Departments; but the amount of costly material and careful attention necessary for the insertion of 8072 gold fillings can be appreciated onl. by the experienced operator.

The number of patients treated (13,059) exhibits the extent of the Dental Infirmary service to a large class of persons of limited means.

OPERATIVE DEPARTMENT.

OPERATIVE DEPARTMENT.	
Gold fillings	8,072
Tin fillings	5,758
Amalgam fillings	3,579
Cement fillings	1,585
Treatment of pulp and pulp canals	6,320
Extractions	3,333
Porcelain Inlays	548
Miscellaneous	870
-	
Total	
Ninety-seven ounces (8 lbs., 1 oz.) of gold were used for	filling,
exclusive of that used for plate and crown work in the Labo	
· ·	
PROSTHETIC DEPARTMENT.	
Full Dentures (Clinical, 161—Technic, 861)	1,022
Partial Dentures (Clinical, 246—Technic, 770)	1,016
Artificial Crown Work (Clinical, 333—Technic, 1314)	1,644
Repair cases	138
Bridge Work—Clinical	65
Bridge Work—Technic	426
Continuous Gum Bridge	159
Interdental Splints	162
Regulating Plates and Appliances	171
Total	4,803
	4,003
ESTIMATE OF EXPENSES.	
FIRST YEAR.	
Matriculation Fee	\$5 00
General Tuition Fee	
Gymnasium and Houston Club Fee	150 00
Dissecting Fee	5 00
Use of Dissecting Material (one part)	1 50
Breakage Deposit	5 00
Books (about)	30 00
Instruments (about)	70 00
Lockers	I 00
Material for Histological and Prosthetic Work	6 00
Board, 35 weeks at \$5.00	175 00
Washing, 35 weeks at 75 cents	26 25
Total, first year	5484 75

SECOND YEAR.

General Tuition Fee	\$150	00
Gymnasium and Houston Club Fee	10	00
Dissecting Fee	5	00
Use of Dissecting Material (one part)	I	50
Dental Engine, instrument (about)	50	00
Additional instruments (about)	90	00
Books (about)	20	00
Lockers	. 1	00
Material for Prosthetic Technic Work	2	00
Board, 35 weeks at \$5.00	175	00
Washing, 35 weeks at 75 cents	26	25
Total, second year	\$530	75
THIRD YEAR.		
THIRD YEAR. General Tuition Fee	\$150	00
		00
General Tuition Fee	10	
General Tuition Fee	10	00
General Tuition Fee Gymnasium and Houston Club Fee Class expenses; rental of Cap, Gown, and Hood	10 5 30	00
General Tuition Fee Gymnasium and Houston Club Fee Class expenses; rental of Cap, Gown, and Hood Instruments (about) Lockers Material for Prosthetic Technic Work	10 5 30 . I	00 00 00
General Tuition Fee Gymnasium and Houston Club Fee Class expenses; rental of Cap, Gown, and Hood Instruments (about) Lockers	10 5 30 . I	00 00 00 00
General Tuition Fee Gymnasium and Houston Club Fee Class expenses; rental of Cap, Gown, and Hood Instruments (about) Lockers Material for Prosthetic Technic Work	10 5 30 . I 2 5	00 00 00 00 00
General Tuition Fee Gymnasium and Houston Club Fee Class expenses; rental of Cap, Gown, and Hood Instruments (about) Lockers Material for Prosthetic Technic Work Material for Ceramic Work	10 5 30 . I 2 5	00 00 00 00 00 00

SCHOOL OF DENTISTRY.

DENTAL GRADUATE SCHOOL, Dogidonas

Hill, Barry,
L. D. S. (Edinburgh),
Isacson, Selmar Walter.
D. D. S. (Univ. of Cal.),
McAloney, Lorne Gilmore,
D. M. D. (North Pacific),
Magaña, Tomás,
D. D. S. (Phila, Dental
College).
Morrell, Otto M.,
D. D. S. (Ohio).
Paull, Wilton Colt.
D. D. S. (Pennsylvania),
Pizarro, Edmundo,
D. D. S. (Pennsylvania),
Refsum, Joseph,
D. D. S. (N. Y. College of
Dentistry),
Podrigues Mester C
Rodrigues, Nestor C., D. D. S. (Laval), M. D.
(Brazil), (Bavar), M. D.
Sharp, George Robert,
Steeves, Simeon Aaron,
D. D. S. (Pennsylvania),
Vandervoort, John Coe,

Name.

Residence.	City Address.
Belfast, Ireland,	122 S. 34th St.
Berlin, Germany,	3326 Walnut St.
Portland, Oregon,	3711 Lancaster Av
Colombia, S. A., Erie, Buffalo, N. Y., Colombia, S. A.,	618 N. 16th St. 3457 Walnut St. 3344 Walnut St. 221 S. 38th St.
-	bar ki. ootii kit,

Bage, Brazil, S. A., Hobart, Tasmania,		Walnut St. Walnut St.	
Moncton, N. B., Can.,	3339	Spring Garden	St
Paterson, N. J.,	3614	Walnut St.	

THIRD-YEAR CLASS.

New York, N. Y.,

Allan,	William	Alistair,
L. I). S. (E	dinburgh),

D. D. S. (Pennsylvania).

Allen, Andrew Bryden,
Arias, Joaquin Maria,
Bailey, Vivian Pinnock,
Barager, Christopher Fagan,
Barker, Clinton Reed,
Baskin, Leslie Dean,
Bell, William Forrest,
Bittenbender, Frank Milnes,
Blad, Erik Walter,
Tandlager (Conenhagen)

Scotland,
Panama, Panam
Germantown,
Brooklyn, N. Y.,
Florence, S. C.,
Auckland, N. Z.,
Bloomsburg,
Bloomsburg,
Conenhagen Der

Tandlaege (Copenhagen), Blakeman, Ralph Sterling, Blaschke, Hugo Johannes, Bleby, Charles Wendell,

Bookstein, Lional Harry, Brake, Blonda Steele,
Brille, Marcel Jacob,
D. E. D. P., ChirurgienDentiste (Paris),

Bury, Maurice,
D. E. D. P., ChirurgienDentiste (Paris),
Campbell, Arthur Albion,
Campbell, Kenneth Graham,
Cannon, James Thomas,
Champagne, Emory Carl,

Grantown-on-Spey. Scotland. Panama, Panama,

Copenhagen, Denmark, 3331 Walnut St. Mt. Vernon, N. Y., 3730 Walnut St. Berlin, Germany, Nassau, New Providence, Bahamas, Albany, N. Y., Jane Lew, W. Va.,

Paris, France,

do. Claremont, N. H., Philadelphia, Oxford, New Haven, Conn., (41)

203 De Kalb Sq. 203 De Kalb Sq. 3721 Spruce St. 17 N. 34th St. [102 E. Price St.] 3711 Woodland Ave. Dorm. 133 Baird. 3256 Walnut St. 5052 Walnut St. 3256 Chestnut St.

3441 Walnut St.

Dorm. 133 Baird.

209 S. 33d St. Dorm. 23 Mem. Tower. 114 S. 33d St.

3222 Sansom St.

3222 Sansom St. 258 S. 38th St. 209 S. 33d St. 3265 Sansom St. 209 McAlpin St.

Colyer, George Clifford,

Daehler, Max,
D. E. D. P., ChirurgienDentiste (Paris),
Danielsen, Gunnar,

Tandlakare (Stockholm), Darrone, Leon Oliver,
Davis, John Leigh,
Davis, Parke Meade,
Day, John Crane,
Ph. B. (Wesleyan),
De Camp, Ira Wilson,
De Witt, George Erastus

Herman,

Donoso-Riofrio, Francisco, M. D. (Ecuador), Zahnartz

M. D. (Ecuator), Zain (Berlin), Dunmire, Blair Howard, Durbury, Paul Coats, Edwards, George Samuel, Ellis, Jason Stanley, Fancher, Walter Earle, Fellows, Armin Thomas, Fox, W. Harold, Friderich, Julius Max, Garcia, Manuel Tomas

Gillespie, Edward Raymond, Godson, Richard,

Goldschmidt, Lawrence Matthew, Gould, Leslie Albert, Green, Alexander Ralston, Gregg, Harry Veeder, Hammond, Julian Theodore,

3d, Harrington, James Boyle, Hartley, Harry, Hausman, Emanuel, Heath, Lewis Fuller, Heefner, Mark Lester, Hill, William Zina, B. S. (Geneva),

B. S. (Geneva),
Horrigan, William James,
Hurley, Clarence Callan,
Jones, Arthur George,
Jordan, James Joseph,
D. E. D. P. ChlrurgienDentiste (Paris),

Kelley, John Otis, Kelly, Percy, B. D. S. (Liverpool),

Kentgens, Johann Leonardo, Kets, Dirk Alexander, Tandmeester (Utrecht), Kiaer, Aage William Thowald,

Tandlaege (Copenhagen), King, Norman Strevens, B. D. S. (Sydney),

Kocher, Lawrence Edward, Koehler, Robert Henry, Kremer, Frederic Baney,

Residence. Freeport, N. Y..

Paris, France.

Stockholm, Sweden, Syracuse, N. Y., Pulaski, N. Y., Ebensburg.

Morristown, N. J., Roseland, N. J.,

Wolfville, N. S., Can.,

Quito, Ecuador, S. A., South Fork. Schenectady, N. Y., Pine Plains, N. Y., Enid. Elmira, N. Y., Montrose. Philadelphia, Cobleskill, N. Y., Wallingford, Conn., Riobamba, Ecuador,

S. A., Binghamton, N. Y., Sydney, New South Wales, Australia.

Philadelphia. Watertown, N. Y., Salem, N. J., Schenectady, N. Y.,

Frankford, Ware, Mass., Philadelphia, Newark, N. J., Lakeport, N. H., Waynesboro,

Pittsburgh, Holyoke, Mass., Wallingford, Conn., Wellington, N. Z.,

Paris, France. Syracuse, N. Y.,

Egremont, Cheshire, Eng., Hoengen, Germany,

Amsterdam, Holland.

Copenhagen, Denmark, 3417 Walnut St.

Sydney, New South Wales, Australia, West Orange, N. J., Bridgeport, Conn., Lebanon,

City Address. 3730 Walnut St.

3222 Sansom St.

3803 Spruce St. 126 S. 34th St. 225 S. 37th St. 209 S. 33d St.

3612 Walnut St. Dorm. 28 Rodney.

3467 Chestnut St.

109 N. 50th St. 3440 Walnut St. 3305 Walnut St. 3406 Sansom St. 3256 Walnut St. 3406 3467 Chestnut St. 3612 Walnut St. 4006 Chestnut St. 3340 Chestnut St. 207 S. 33d St.

217 S. 33d St. 3467 Chestnut St.

28 N. Yewdell St.

1414 N. 8th St. 3612 Walnut St. Dorm. 20 E. F. Smith. 3467 Chestnut St.

[5005 Penn St.] 3612 Walnut St. 3743 Spruce St. Dorm. 23 Mem. Tower. 3344 Walnut St. 3743 Spruce St.

3408 Sansom St. Dorm. 453 N. Y. Alumni. 3743 Spruce St. 3406 Sansom St.

203 S. De Kalb Sq. 3730 Walnut St.

3617 Locust St. 3812 Locust St. 3435 Walnut St.

3601 Sansom St. Dorm. 377 Hopkinson. 3730 Walnut St. 3607 Locust St.

Lágos Z., Luis,
Dentista (Chile), Lamb, Patrick Henry, Lane, Dennis Joseph, Latham, Ernest Richard, Levy, Ellis, Lindhard, Knud Marius Secundus. Tandlaege (Copenhagen),

Line, George William. McCushing, George Joseph Bernard, McGinnis, Charles Thomas, McNamara, Fred. Cleveland, McWilliams, Hugh, Maby, Edward Raymond, MacGeorge, Hubert, Madden, John Joseph, Mahony, Daniel Joseph, A. B. (Bates),

A. B. (Bates),
Massonnet, Andrew Louis,
D. E. D. P., ChirurgienDentiste (Parls),
Master, Edward Andrews,
Mata, José Alejandro,
Ph. B. (Ecuador),
Mathers, Frank Earle,
Meeker, Robert Wilson,
Melerhoffer, Charles Joseph,
Michael, Reynard Conklin,
Moe-Larsen, Arne Moe-Larsen, Arne, Tandlaege (Copenhagen),

Tandlaege (Copenhagen),
Molinar, Pedro Julian,
Monson, Hollis Gilman,
Morgan, Francis Edward, Jr.,
Muntinga, Albert Franz,
Nesbit, Bruce Squires,
Nestler, Edwin Jacob,
Ormrod, James,
L. D. S. (England),
Osmanski, Frank Edward,

Osmun, Alvin Fern, Packard, William Thornton, Park, Alexander Edgar. Pellerano, Manuel de Jesus, Perez, Vincent Leonidas, Jr.,

Perpente. Albert Stevener, Peters, Raymond Francis, Petersen, Aage,
Tandlaege (Copenhagen),
Petersen, Erik Lindegaard,
Tandlaege (Copenhagen), Petterson, Harry Eugene, Pickard, George Clinton,

Pitt, Edward, Proctor, Gerald Fitzgerald,

Quinn, Joseph Alexander, Raabe, Charles Samuel, Raveau, Luis, Dentista (Chile),

Radin, Louis Ralph, Reed, John Claudius, Rufe, Edgar Johnson,

Residence. Santiago, Chile, S. A.,

Paterson, N. J., Dushore. Providence, R. I., Philadelphia,

Frederikssund, Denmark, Carlisle.

Keene, N. H., Paterson, N. J., Thompson, Philadelphia, Cohoes, N. Y., Camden, N. J., Danbury, Conn.,

Rochester, N. H..

Paris, France. Flushing, N. Y.,

Quito, Ecuador, S. A., Woodbury, N. J., Plainfield, N. J., Orange, N. J., Mellenville, N. Y.,

Copenhagen, Denmark, 3417 Walnut St. Chihuahua, Mexico, Portland, Me., Santa Cruz, Cal., Walla Walla, Wash., Lewisburg, Palisades Park, N. J.,

Southport, England, Nanticoke, Hackettstown, N. J., Clayton, N. Y., Wayne. Santo Domingo, W. I., San José, Costa Rica, C. A., Jersey City, N. J.,

Egypt, Svendborg, Denmark,

do. Worcester, Mass., Victoria, B. C., Bexhill, England, Port of Spain, Trini-dad, B. W. I., New Brunswick, N. J., Boise, Idaho,

Valparaiso, Chile,

Newark, N. J., Drayton Island, Fla., Revere,

City Address.

"The Tracy," 36th and Chestnut Sts. 3729 Spruce St. 3731 Market St. 3612 Walnut St. 1919 N. Mervine St.

3331 Walnut St. 3256 Walnut St.

Sansom St. Walnut St. Locust St. 3619 3730 3612 2133 Bainbridge St. 3313 Walnut St. [521 Broadway.] 3612 Walnut St.

217 S. 33d St.

104 S. 33d St. Dorm. 22 Coxe.

17 N. 34th St. 3467 Chestnut St. 305 S. 38th St. 207 S. 33d St. 110 S. 33d St.

3262 Chestnut St. 3467 Chestnut 3612 Walnut St. 3467 Chestnut St. 1717 Arch St. Dorm. 38 Bodine.

3617 Locust St. 122 S. 34th St. Dorm. 303 Brooks. 207 S. 33d St.

217 S. 33d St.

3440 Walnut St. Dorm. 34 Bodine. 3612 Walnut St.

3609 Locust St.

3609 Locust St. $\frac{3612}{3607}$ Walnut St. Woodland Ave. 3408 Sansom St.

4615 Woodland Ave. 3830 Baring St. 3933 Baltimore Ave.

"The Covington," 37th and Chestnut Sts. 3422 Sansom St. 3730 Walnut St. Dorm. 20 Morgan.

Ruse, Byron Erace, B. D. S. (Sydney),

Scott, Robert Douglas.

Scully, Edward Paul, Shively, John Cornelius, Smith, Chester Earl, Smith, Edwin Reynolds, Spence, William George, Stott, Harry Barton, Sullivan, John Joseph, Sullivan, James Michael, Talley, Dyer Beeler, Thomson, John Brown.
L. D. S. (Edinburgh), Thomson, Robert,
L. D. S. (Edinburgh), Vail, Clinton Theodore, Vaucher, Edmond, Zahnarzt (Zurich), Scully, Edward Paul,

Zahnarzt (Zurich), Zahnarzt (Zurich), Verdier, Pierre Francois, D. E. O. D. F., Chirur-gien-Dentiste (Paris), Vernon, George Herbert, Vickers, Arthur Templeton, Walker, John Albert Basil, B. D. S. (Sydney),

Wallace, William Henry, B. S. (Claflin), Walton, Charles Cleveland, Watson, Edward Oliver, B. D. S. (Sydney),

Weaver, Lee A., Weil. Adolphe Robert, Zahnarzt (Strassburg). Wharfield, Ernest Chester, Whitbeck, Clair Willis Van Slyke, Wright, William Minniss, Zeliff, Cyrus V.,

Residence.

Sydney, N. S.W., Australia, Strathfield, N. S. W., Australia. Austrana, Meriden, Conn., Caldwell, Ohio, Thornton, Wash., Schenectady, N. Y., Newbridge, Ont., Can., Rochester, N. Y.

Thompsonville, Conn., Fall River, Mass., Syracuse, N. Y.,

Thornhill, Scotland.

Edinburgh, Scotland, Middletown, N. Y.,

Fleurier, Switzerland, 122 S. 34th St.

Paris, France. Florida, N. Y., Camden, N. J.,

Minmi, N. S. W., Australia,

Orangeburg, S. C., Thames, N. Z.,

Sydney, N. S. W., Australia. Blossburg,

Strassburg, Germany, Springfield, Mass.,

Lamson, N. Y., Union City, Haledon, N. J., City Address.

3601 Sansom St.

209 S. 33d St. 3313 Walnut St. 3467 Chestnut St. 3467 Chestnut St. 3223 Sansom St. 1231 Tasker St. 1231 135ker St. 111 S. 34th St. 211 S. 33d St. 3619 Sansom St. 3467 Chestnut St.

203 De Kalb Sq.

203 De Kalb Sq. 3612 Walnut St.

3803 Spruce St. Dorm. 323 Leidy. [15 N. 21st St.]

3601 Sansom St.

2115 Fitzwater St. 206 S. 37th St.

3601 Sansom St. 111 S. 34th St.

3222 Sansom St. Dorm. 313 Leidy.

3750 Powelton Ave. 3467 Chestnut St. 3703 Locust St.

SECOND-YEAR CLASS.

Bailey, William Richard, Barberena, Narciso, Jr.,

Beegan, Edward James, Bestic, Edwin Henry,

Blumer, Gabriel Edward, Bogatin, Samuel Ferdman, Brackett, Philip Chaplin, Bray, Joseph Aloysius, Briggs, Edgar Zeh. Broad, Walter Harold. Brown, John Draper, Jr.. Carter, Henry McCormick, Chapman, Guy Brougham, Clarke, William Francis, Close, Hugh William, Creegan, Joseph Michael. Creegan, Joseph Michael, Crowly, Arthur William,

Alelaide, S. Australia, 126 S. 34th St. Granada, Nicaragua, C. A., New Haven. Conn.,

Woolwich. N. S. W., Australia, Syracuse, N. Y., Philadelphia. S. Portland, Me., Hartford, Conn., Schenectady, N. Y., South Fork, Wilmington, Del., Jersey Shore, Adelaide, S. Australia, Brisbane, Queensland, Granville, N. D., Philadelphia, New Haven, Conn., Canandaigua, N. Y.,

3927 Baltimore Ave. 3743 Spruce St.

124 S. 34th St. 3467 Chestnut St. 2339 S. 10th St. 3612 Walnut St. 909 S. Vogdes St. 3305 Walnut St. 115 S. 34th St. [1004 N. Adams St.] 3703 Woodland Ave. 3256 Chestnut St. 102 S. 36th St. 909 S. Vogdes St. 653 Brooks Ave. 3743 Spruce St. Dorm. 435 Baird.

Cunningham, Martin Thomas, Dolan, Edward George, Donehue, Edward John, Donovan, William Henry, Dougall, Donald MacPherson, Dunfee, John Frey, Easton, Burt Abbott, Ewing, De Forrest Willard, Farley, Le Roy Webster, Finlay, James Colin,

Fosdick, Willard Albion, Foster, Herman Nickerson, Frank, Austin Corbin, Frey, Raymond Earl, Garfat, Arvy Addison, Gonard, Gustave Armand, M.D. (Montpellier), Gorman, John Joseph, Gramcko, Enrique José,

Gray, Walter Leon, Guthrie, John Edward Henry, Hamilton, William Nathaniel, Harkins, Leonard Jones, Harris, Francis John, Harris, Frank Wesley, Hershfield, Alfred, Holmes, Edward Morgan, Hoyt, William Hayes, Hutchinson, Ralph Henry, Imlay, Harry Miller, Hutchinson, Ralph Henry, Imlay, Harry Miller, Irvin, Lafayette Lee, Irwin, David Hayes Agnew, Johnson, John Harry, Jones, William Brendel, A. B. (C. H. S.), Joslin, John Whitman, Jr., Kaley, Myrle, Keeley, Joseph Francis. Kelly, Calvert Edward, Keogh, John Joseph, Kerr, Kenneth Younger,

Kirshbaum, Milton Alexan-Krause, H. Ogle,

Lockery, John Walter,
Lore, Carleton Francis,
McComb, Fred. Armstrong,
McCrystal, Joseph, Jr.,
McGinn, Harold Joseph,
McKeon, Francis Joseph,
McMahon, John Charles,
McPherson, Edward Koch,
Macfarlane, Douglas Graham,

Maris, Robert Hoopes, Meyer, Charles Joseph, Miller, Fred. Duffield. Miranda, Henrique Oswaldo Molina, Carlos Hilario,

Monsell, Ray Harrison, Morris, Robert Dunham,

Residence.

Holyoke, Mass., Stamford, Conn., Whitehall, N. Y., St. Albans, Vt., Maplewood, N. J., Towanda, New York, N. Y., Philadelphia, Trenton, N. J., Auckland, N. Z.,

Ansonia, Conn., Augusta, Me., Woodside, N. Y., Steelton. Winnipeg, Man., Can., 121 S. 34th St.

Paris, France, St. Clair, Puerto Cabello, Venez-Bradley Beach, N. J., Newark, N. J., New Haven, Conn., Philadelphia, Providence, R. I., Morris, Minn., New York, N. Y., West Pittston, W. Somerville, Mass., Augusta, Me., Allentown, N. J., Winchester, Ind., Camden, N. J., Hainesville, N. J.,

Philadelphia, Finiadelphia,
Johnstown, N. Y.,
Lestershire, N. Y.,
Bridgeport, Conn.,
New York, N. Y.,
S. Hadley Falls, Mass.,
Sydney, N. S. W., Australia tralia,

Germantown, Philadelphia,

Scranton, Collingswood, N. J. Rouseville, Paterson, N. J., Bangor, Me., Albany, N. Y., Mt. Morris, N. Y., Philadelphia, Frankfurt, A. M., Germany Wilmington, Del., New York, N. Y., Altoona,

Pará, Brazil, S. A., Quezaltenango, Guatemala, C. A., Greenport, L. I., N. Y., New Haven, Conn.,

City Address. 3256 Chestnut St.

3256 Chestnut St.
3338 Chestnut St.
Dorm. 361 Baird.
3730 Walnut St.
3608 Locust St.
Dorm. 42 Robt. Morris.
3014 Girard Ave.
219 S. 33d St.
"The Covington," 36th
and Chestnut Sts.
Dorm. 301 Brooks.

Dorm. 301 Brooks. 3440 Walnut St. 3271 Chancellor St. 1900 Fairmount Ave.

3326 Walnut St. 3531 Locust St.

3249 Locust St. 3249 Locust St. 3319 Walnut St. 18 N. 34th St. 4917 Florence Ave. 3338 Chestnut St. Dorm. 45 Mem. Tower. 3608 Locust St. 5000 Locust St.
Dorm. 435 Baird.
268 S. 38th St.
3440 Walnut St.
3612 Walnut St.
3612 Walnut St.
[425 Cooper St.]
3610 Locust St.

1631 Oxford St.

126 S. 34th St.

[5108 Greene St.]
"The Normandie," 36th
and Chestnut Sts. 3256 Chestnut St.

3263 Chancellor St. 3467 Chestnut St. Dorm. 13 Morgan. 3900 Market St. 3610 Locust St. 1226 N. 42d St.

3706 Locust St. [607 W. 5th St.] Dorm. 46 Coxe. 3730 Walnut St.

3419 Walnut St.

3324 Walnut St. Dorm. 378 Hopkinson. 3256 Chestnut St.

Morrow, Roy Nadin, Moynihan, James Jeremiah, Munson, Wilford Gibbud, Murray, Jeremiah Louis, Nash, Roscoe John, Nicholas, Guy Elwin, Northrop, Benjamin Howard,

Oestreich, George Washing-

ton,
O'Leary, Cornelius Joseph,
Olive, Thomas Homer,
B. A. (Wake Forest),
Parker, George Eugene,
Pearce, Matthew Chalmers,
Perry, John Jay,
Perry, James Neil, Jr.,
Phillips, Glen Shattuck,
Phreaner, Ellis Hall,
Pratt, Frederick William,
Protzel, Albert,
Protzel, Julius,
Randall, Lyman Frederick,
Randall, Orville Felt,

Reed, George Henry,

Reisner, Leon, Ribble, Roy Dufford, Riechelmann, Guy Ernest,

Rine, Clyde S., Roberts, Eugene Walton, Roche, Thomas Joseph, Jr., Ruddy, Charles John, Sandman, Mervin Finis, Shields, Robert Cardwell, Shoemaker, Edwin,

B. S. (Haverford),
Slocum, Harold Sheridan,
Smith, Edwin Howell,
Smith, Warren Linwood,
Solomons, Joseph R., Jr.,
Sparrow, William Joseph,
Steffens, Charles,
Stein, George Koser,
Stephens, Roy,
Stern, David Samuel,
Stone, Harold Adelbert,
Stritch, John Herbert,
Sturdevant, Tracy Beadle,
Swing, Charles William,
Tarasido, Rodolfo,

Toledo, Julio Everardo,

Tuck, William,
Van Dine, Elmer Martin,
Walker, Slater Rolland,
A. B. (Geneva),
Weigester, Charles Smiley,
White, George Ernest,
White, Louis Edwin,
Wilbur, Daniel Webster,
Wilson, Jeseph Edward,
Winslow, Henry Allen,
Winter, Howard Carsen,

Course. Residence.
Paterson, N. J.,
Glen Falls, N. Y.,
New Haven, Conn.,
St. John, N. B., Can.,
Frenchtown, N. J.,
Augusta, Me.,
East Hampton, L. I.,
N. Y.,

Philadelphia, Glen Falls, N. Y.,

Apex, N. C., Kissimmee, Fla., Orange, N. J., New York, N. Y., Germantown, Linesville, Media, Timaru, N. Z., Lima, Peru, S. A., do.

Oneida, N. Y., Central Park, B. C., Canada, Hampden Highlands,

Me.,
Long Branch, N. J.,
Washington, N. J.,
Mackay, Queensland,
Australla,
Winchester, Ind.,
Riverton, N. J.,
Mt. Airy,
Brooklyn, N. Y.,
Greenport, L. I., N. Y.,

do.
Oswego, N. Y.,
Philadelphia,
Augusta, Me.,
Brooklyn, N. Y.,
San Francisco, Cal.,
New York, N. Y.,
Lykens,
Thornton, Wash.,
Paterson, N. J.,
New Haven, Conn.,
Gilbertville, Mass.,
Elmira, N. Y.,
Philadelphia,
Buenos Aires, Argentina, S. A.,
Guatemala City, Guatemala, C. A.,
Brooklyn, N. Y.,

Beaver Falls, Troy, Cohoes, N. Y., Lopez. Pine Plains, N. Y., Stamford, Conn., Fall River, Mass., New Kingston, N. Y., City Address.
3467 Chestnut St.
3319 Walnut St.
Dorm. 34 Mem. Tower.
3319 Walnut St.
115 S. 34th St.
3730 Walnut St.

3610 Locust St.

1643 W. Huntingdon St. 3319 Walnut St.

219 S. 33d St.
3445 Walnut St.
Dorm. 377 Hopkinson.
614 N. 16th St.
[113 W. Logan St.]
Dorm. 10 Morgan.
1707 Chestnut St.
126 S. 34th St.
203 S. 33d St.
203 S. 33d St.
122 S. 34th St.

223 S. 33d St.

Dorm. 116 Foerderer. 3612 Walnut St. Dorm. 311 Brooks.

208 S. 37th St. 3612 Walnut St.

[212 Gowen Ave.] Dorm. 25 E. F. Smith, Dorm. 365 Baird. 3704 Locust St.

2011 Chestnut St.
Dorm. 440 Hopkinson.
2536 Diamond St.
3440 Walnut St.
Dorm. 441 Hopkinson.
3612 Walnut St.
Dorm. 46 Coxe.
3445 Walnut St.
3467 Chestnut St.
Dorm. 26 Coxe.
Dorm. 361 Baird.
3236 Chestnut St.
Dorm. 50 E. F. Smith.
703 N. 40th St.

3324 Woodland Ave.

3329 Woodland Ave. Dorm. 365 Baird. 3429 Walnut St.

3263 Chancellor St. Dorm. 30 Robt. Morris. Dorm. 376 Hopkinson. 120 S. 34th St. 3406 Sansom St. 3737 Spruce St. Dorm. 247 Carruth. Dorm. 42 Robt. Morris.

Yamagata, Sakuro, M. D. (Tokio), Yetman, Arthur Leon, Yost, Allan Kuney, Younger, Frank Joseph,

Course. Residence.

Tokio, Japan, Freehold, N. J., Waterloo, N. Y., Madrid, Spain,

City Address.

3475 Sun. 3405 Chestnut St. Dorm. 378 Hopkinson. 3319 Walnut St. 3475 Sansom St. 3405 Chestnut St.

FIRST-YEAR CLASS.

Aleman, Julius, Allen, Otis Albert, Appleget, Clarence Jaslin, Attiah, Assaad Joseph, Austin, Robert Leslie, Bagenstose, Alvin Jacob, Baines, Fred. Arthur, Balthaser, Jacob B., Barkann, Milton David, Barrett, Albert Gardner, Bauer, William Clarence, Beekman, Abram Russell, Bell, Homer Ray, Bestard, Miguel Enrique, Blumberg, Louis, Boley, Jerome, Boley, Jerome, Borden, Walter Augustus, Jr., Brady, Guy Harris, Brown, Merritt Ernest, Jr., Burns, John Anthony, Callery, Peter Paul, Cameron, James Ritchie, Campbell, Archie Alexander,

Casals, Luis Francisco, Caston, Ernest Guy, Chandler, Ralph Ramsey, Chatterton, Justus Wakelee, Chichester, Harvey Nelson, Christiani, Carl Antoine, B. S. in C. E. (Pennsyl-

vania), Clement, Robert Law, Coleman, George Antonius, Colman, Joseph Aloysius, Comas, Manuel, Costa, Juan Bautista,

Courtemanche, Arthur Bruno, Courtney, Thomas Joseph, Cross, Earl Vaughn, Crossman, Llewellyn Haight, Cruz, Andrés Domingo, Cuneo, Charles Matthew, Cunningham, Arthur Jarvis, Cutler, Reuben Lewis, A. B. (C. H. S.), Daly, Robert Theron, Davenny, Harry Greene, B. S. (Whitman), Davidson, Byron Jeffry, Dean, Stanley Johnston,

Detrick, Willard Forrest, Diaz, Juan José, Dodds, Lorne Anthony, Ph. G. (Pittsburgh), Donnelly, Hugh Leonard,

Panama, Panama, Sweet Valley, Trenton, N. J., Cairo, Egypt, Red Bank, N. J., West Leesport, Brooklyn, N. Y., Ephrata, Jersey City, N. J., Troy, N. Y., Brooklyn, N. Y., Paterson, N. J., Ariel. Philadelphia, do. Brooklyn, N. Y., Philadelphia, Sidney, N. Y., West Pawlet, Vt., Fall River, Mass., Silver Creek, Levin, N. Z., Harvard, Neb.,

Ponce, P. R., Pittston, Me., Miner's Mills, Poughkeepsie, N. Y., Brooklyn, N. Y.,

Philadelphia,

do. Austin, Philadelphia, Guantanamo, Cuba, Guayaquil, Ecuador, S. A., Fall River, Mass., New Haven, Conn., Sterling, Jersey City, N. J., Ponce, P. R., Owego, N. Y., Jersey City, N. J., Ponce, P. R., Owego, N. Y., Warrensburg, N. Y.,

Camden, N. J., Herkimer, N. Y.,

Ritzville, Wash., Red Bank, N. J., Wollongong, N. S. W., Australia, Hancock, N. Y., Panama, Panama,

New Wilmington, Springfield, Mass.,

3737 Spruce St. 3723 Spruce St. [315 Bellevue Ave.] 3606 Locust St. Dorm. 22 Birthday. 3643 Locust St. 3459 Walnut St. 3459 Walnut St.
126 S. 34th St.
Dorm. 372 Hopkinson.
3617 Sansom St.
5647 Walnut St.
3408 Sansom St.
3230 Sansom St.
3230 Sansom St.
3247 Chestnut St.
729 S. 2d St.
3723 Spruce St.
1124 Walnut St.
122 S. 34th St.
3708 Spruce St.
3619 Sansom St.
3330 Walnut St.
14 N. 36th St.
[208 E. 8th St., Chester.] ter.] ter.]
Dorm. 44 E. F. Smith.
225 S. 33d St.
Dorm. 309 Brooks.
218 S. 37th St.
5047 Walnut St.

3471 Chestnut St. 2147 Bainbridge St. 3443 Woodland Ave. 2262 N. 21st St. 111 S. 34th St.

3236 Chestnut St. 3619 Sansom St. 3612 Locust St. 3230 Sansom St.

[323½ Kaighn's Ave.] 14 N. 36th St.

3617 Locust St. Dorm. 22 Birthday.

3610 Locust St. 14 N. 36th St. 3737 Spruce St.

2d and Luzerne Sts. Dorm. 22 Mem. Tower.

Dougherty, Francis William, Dougnerty, Francis William, Dunleavy, James Matthew, Eck, Louis Andrew, Jr., Ells, John, Facteau, Henry Homer, Fagan, Laurence Leo, Fitzsimmons, Walter Aloysius

Flanigan, Edward Anthony, Fox, Henry Michael, Fuller, Willhenry, Gainsway, Lanson Francis, Gale, Edwin Harold, Garcia, Adolfo,
Garrett, Henry Middleto
A. B. (Biddle),
George, Raymond Scott,
Gibbs, Hubert Roderick, Middleton,

Ginsburg, Harry Albert, Goldberg, Jacob Fisher, Grossman, James Harry, B. S. and E. (C. H. S.), Gwydir, Robert Rickard, Harris, Carleton Tilley, Harris, Charles Melville,

Hart. Leslie Bruce.

Hart, Terry Mitchell,
A. B. (Lincoln),
Hatfield, William Henry,
Hicks, Francis Allen,
Hoag, Mark Rooney,
Holt, Stanley Newton,
Housel, Fred. Heilman,
Jackson, Miguel Wise,
Jayne, William Merritt,
Jennings, Willoughby Marks,
Jones, Cyrus Cummings,
Jouve César Guillermo,
Kelleher, William Joseph,
Kenedy, John Francis,
Kenedy, John Francis,
King, Francis Xavier,
King, Francis Xavier,
Kochenour, Paul Gerhart,

Australia,
Americus, Ga.,
Utica, N. Y.,
Springfield, Mass.,
Dorm. 22 Mem. Tower.
225 S. 33d St.
3723 Spruce St.
3724 Spruce St.
3725 Spruce St.
3726 Spruce St.
3727 Spruce St.
3728 Spruce St. Kiotz, Donald Jean, Kochenour, Paul Gerhart, Krick, Adam Henry, Lawrence, Augustin Leo, Levine, Harry H., Lindsay, Kenneth, Lockwood, Rae Webster, Lofland, Carl Wendell, Long, Clyde Roland, López, Pedro Adolfo,

Lyle, Herbert Cecil, McDonald, De Witt Kennett, McKim, Roswell Lansing, MacCormick, John Joseph,

MacGowan, Andrew, Martin, Raymond Samuel, Martinez Serrano, Ignacio Alberto,

Course. Residence.

Mt. Airy, Mt. Any, New Haven, Conn., Jersey City, N. J., Bar Harbor, Me., Tupper Lake, N. Y., Milnesville, New York, N. Y.,

Avoca, Silver Creek, Clinton, Mass., New York, N. Y., Remsen, N. Y., Albany, N. Y., Fajardo, P. R.,

Beaufort, S. C., Long Branch, N. J., Adelaide, South Australia, Hartford, Conn., Philadelphia,

do. Jamaica, L. I., N. Y., Hudson, N. Y., Nassau, New Provi-dence, Bahamas, Mandamah, N. S. W., Australia.

Harrisburg, Hazleton,
Flushing, N. Y.,
Norfolk, Va.,
York, Neb.,
Freehold, N. J., Kennett Square, Mt. Jewett, Guatemala City, Guate-

mala. C. A., Philadelphia, Schenectady, N. Y., Watertown, N. Y., Buenos Aires, Argentina, S. A., East Orange, N. J., Reading,

Guayaquil, Ecuador, S. A.,

City Address.

[205 Allen La.] 3229 Sansom St. 3720 Locust St. 120 S. 34th St. 3707 Locust St. 3727 Spruce St. 225 S. 33d St.

Dorm. 45 Bodine. 3330 Walnut St. 122 S. 34th St. 14 N. 36th St. 3429 Walnut St. 207 S. 33d St. 122 S. 33d St.

2107 Carpenter St. 225 S. 33d St.

3236 Chestnut St. 3250 Sansom St. 1425 N. 7th St.

970 N. 5th St. 3443 Woodland Ave. Dorm. 23 E. F. Smith.

3422 Sansom St.

3443 Walnut St.

1400 N. Hirst S: 3725 Spruce St. 1733 Arch St. 268 S. 38th St. 3710 Market St. 3612 Locust St. Dorm. 41 Mem. Tower. 3715 Locust St. 3404 Sansom St.

3608 Walnut St. 1645 N. 60th St. 3305 Walnut St. 66 N. 36th St.

215 S. 33d St. Dorm. 439 Hopkinson. 2916 W. Thompson St.

217 S. 33d St.

Mattei, Oscar, Mayers, Andrew Sefton, Melville, Edward Cornelius,

Mondragon, Alfonso,

Moore, Henry Sumner Hyatt,

Moriarty, Michael James, O'Connor, John Allen, Offen, Roger Lansing, Oosterbaan, Albert Joan Antonius,

O'Rourke, James Joseph, O'Rourke, James Joseph, Ovens, Le Roy, Painter, Horace Burnette, Parker, Albert William, Pearson, Raymond William, Pennington, Walter Ambrose, Perras, Eiffel Alphonse, Provot, Francis Adolphe, C. E. (Columbia),

Puderbaugh, Edward Anthony, Rasi, Hazimeh Selim,

Reiter, Otto, Robinson, Lloyd Collins, Rodriguez, José,

Roncovieri, Louis David, Rose, Harold Charles, Rosenbaum, Hymen, Rupert, Donald Wye, Sayre, Frank Easton, Seidel, Frank, Shannon, Stanley Gaius, Sharp, George Preston, Sharp, Jacob, Sobral, Horacio Anibal Martinez.

Spanier, Harold Beyer, Staats, George Edward, Steinsieck, Egbert Chapin, Stevenson, Ralph Erskine, Stringer, Robert George, Sturridge, Montague Hilton Galway.

Summers, Dean Whaley, Tofini, Barnaba, Trimpi, Norman Whitfield, Valdes, Antonio Alvarez, Jr., Van Alstyne, Earl Zeh, Vandevoort, Charles Fra-

sier, Visser, Jan, Vreeland, Robert Chase, Wakerly, Fred. Fay, Walter, Willis Charles, Warner, James Stark, Welch, Edward Francis, Weyrauch, George Edwin, Whalen, William Patrick, White, Raymond Le Roy, White. Samuel Wesley Visser, Jan White, Samuel Wesley,

Course. Residence. Ponce, P. R.

Philadelphia, Black River, Jamaica, B. W. I., Tacubaya, Mexico City, Mexico, Frankfort, A. M., Ger-

many, 2617 Locust Lt.
Valatie, N. Y., Dorm. 122 McKean.
Jamaica, L. I., N. Y., 3443 Woodland Ave.
Stamford, Conn., 3737 Spruce St.

Amsterdam, Holland, Providence, R. I., Herkimer, N. Y., Birdsboro, Kissimmee, Fla., York Springs, Millville, N. J., North Troy, N. Y.,

New York, N. Y.,

Eldorado, Cairo, Egypt, Newark, N. J., Morrisville, Vt., Managua, Nicaragua, C. A., San Francisco, Cal., Cobleskill, N. Y., New Haven, Conn., Trenton, N. J., Dundee, N. Y., Philadelphia, Oneonta, N. Y., Cadiz, Ohio, Guilford, Conn.,

Guatemala City, Guatemala, C. A., Brooklyn, N. Y., do. Philadelphia, Clover, S. C., Windber,

Mandeville, Jamaica, B. W. I., Champaign, Ill., Rome, Italy, Maplewood, N. J., San Juan, P. R., Schenectady, N. Y.,

Paterson, N. J., The Hague, Holland, Dover, N. J., Little Falls, N. Y., Watertown, N. Y., Wilkes-Barre, Marblehead, Mass., Newark, N. J., Adams, Mass., Port Morris, N. J., Philadelphia,

City Address. Dorm. 44 E. F. Smith. 3003 Euclid Ave.

3229 Sansom St.

3228 Lancaster Ave.

Dorm. 428 Baldwin. 111 S. 34th St. 14 N. 36th St. 20 Preston St. 3445 Walnut St. 3714 Locust St. 25 S. 34th St. 2001 Arch St.

14 S. 36th St.

122 S. 33d St. 3606 Locust St. 2843 Ridge Ave. Dorm. 373 Hopkinson.

3350 Walnut St. Dorm. 40 Birthday. 3422 Sansom St. 3422 Sansom St.
Dorm. 409 Leidy.
215 S. 33d St.
1409 Spruce St.
2715 Kensington Ave.
3615 Locust St. 1912 S. 17th St. 3250 Sansom St.

3249 Sansom St. 3271 Chancellor St. 3723 Spruce St. 5306 Osage Ave. 120 S. 34th St. 3330 Walnut St.

3229 Sansom St. 3615 Locust St. 700 Christian St. 3435 Chestnut St. 205 S. 33d St. 3344 Walnut St.

3614 Walnut St.
Dorm. 428 Baldwin.
3407 Walnut St.
26 N. 42d St.
66 N. 36th St.
Dorm. 45 Bodine.
839 N. 39th St.
Dorm. 231 Craig,
Dorm. 35 Mem.
3407 Walnut St.
3542 N. 16th St. 3614 Walnut St.

Course. Residence.

City Address.

TTTILL TO TT	Course. Residence.	Oity Hadress.
Wilson, John Henry, A. B. (Lincoln University Wolfson, Offim Philip, Woodcock, Ernest Melville, Woolsey, Arthur Field, Yost, Harry Adams,), Danville, Va., Key West, Fla., Bangor, Me., Elizabeth, N. J., Waterloo, N. Y.,	708 S. 17th St. 3323 Walnut St. Dorm. 15 Morgan. 218 S. 37th St. Dorm. 378 Hopkinson.
	SPECIAL STUDENTS.	
Barry, Philip Aloysius,	Philadelphia,	5330 Walton Ave.
Barry, Philip Aloysius, Paull, Wilton Colt, D. D. S. (Pennsylvania), Sobrino, José Schmidt,	Buffalo, N. Y.,	2344 Walnut St.
Cirurgiao Dentista (Brazil), Swinburn, Harry Wilfrid,	Rio de Janeiro, Brazil, Invercargill, N. Z.,	3419 Walnut St. 126 S. 34th St.
	SUMMARY.	
Dental Graduate	School	12
Students of the T	Chird-year Class	145
	Second-year Class	
	irst-year Class	
Special Students	• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·
r	otal	461
C	Crescon on Day	Cmrrnaga
GEOGRAPHICA	AL SUMMARY OF DENTAL	STUDENTS.
Argentine Republic 1	Holland 3	Panama 3
Autralia 16	Idaho I	Pennsylvania102
	Illinois I	Peru 2
	Indiana 2	Porto Rico 4
	Ireland I	Rhode Island 3
California 3 Canada 6	Italy I Jamaica 2	Santo Domingo I Scotland 3
Chile 2	Japan I	Scotland 3 South Carolina 4
Colombia 2	Maine	Spain I
Connecticut 25	Massachusetts 18	Sweden I
Costa Rico 2	Mexico 2	Switzerland 1
Cuba 1	Minnesota I	Tasmania I
Delaware 2	Nebraska 2	Trinidad I
Denmark 6	New Hampshire 4	Venezuela I
Ecuador 6	New Jersey 55 New York 98	Vermont 3 Virginia 2
Egypt 2 England 3	New Zealand 7	Virginia 2 Washington 4
Florida 4	Nicaragua 2	West Virginia I
	North Carolina I	
Georgia 2	North Dakota I	461
Germany 6	Ohio 2	
	Oregon I	

DEGREES IN COURSE.

At a public Commencement, held on Wednesday, June 15, 1910, the degree of Doctor of Dental Surgery was conferred on the following:

Frank Clifford A'Court Birger Andersen Edward Sinclair Anderson Albert Milne Applegate Walter Thomas Arms Malcolm Penquin Astley Thomas Dodd Bailey George Francis Baker Henry Oxley Bateman Walter Albert Beams Berton Elmer Beck Byron Stanley Behney Edward Harney Bell Thomas Bell Reinhardt Paul Bender Harvey Wilcox Bentley Frank Wilkinson Berkhimer Cecil John Burge Victor Charles Burt Herman de Castro Marco Tulio de Castro Ruben Castro Howard Alonzo Cheney Daniel Henry Cloutier Lynn Rosevear Cole James Jacob Conran Leonard Marshall Crockett Eldon Lewis Crowell William James Crowley John Francis Curran Joseph Emerson Davis Laurence Bret Day David Philip Dear William Clyde Decker Luis Carlos Delgado Hernandez Clarence Stoudt De Long Archibald Randolph Fulton Douglas Charles Francis Egan Ralph Embler Albert William Backwell Fenn Julius Walter Herman Johannes Emerson John Le Houllicr Fiedler Nathaniel Henry Leiken Ernest Philip Jacob Friederich

Ernest Andrew Abbott

Henrique Feio Galvao Ernest Charles Gierding Karl Glaser Freas Marion Golder **Julius Goldsmith** Frank Hannibal Graham Milton Franklin Graver John Havelock Gunter Robert Joseph Haley Victor Hallenberg Joseph Thomas Ham Cloyd Summerfield Harkins Forrest Mayes Harrison Ludolph Theodorus Arend van Hasselt Leo Paul Haywood Robert Harold Heath Octave Napoleon Hebert Jan Herman van Heemskerck Düker Daniel John Hennessy Samuel Herder Jerome Evan Hirtle Benjamin Franklin Hohenshilt Harold Brainerd Holmes Thomas Aloysius Holton George Traverner Hoyes James Thomas Ivory Johannes Jacobsen Edward George Jones Frank John Kelley Daniel Joseph Kelly William Carpenter Kelly Stuart Theodore Ketcham Isadore Harold Knopf Otto Paul Koch Howard Samuel Koontz Victor Labarraque y Arnaud Poul Lange Frank Henry Lantier Clarence Henry Lash John Law Alfred Isak Levin

Charles Walter Lewis, Jr. Gustav Johannes Lind Theodore Kent Lindstedt Murray Kingsley Litchfield Millard Bean Long Orville Smith Long Gustav August Lüder André Joseph Lugand George Hill McElhone John Warren Manning, Jr. Ernest Signey Martin Vincent Timothy Meaney Duncan Pryor Meikle Frank William Mete. William Harrison Moffatt Edmond Felix de Monseigle Henry Adams Motchman Byron Ellsworth Noyes George Abel Nutter John Robert O'Brien William Blaine Oliver Wilton Colt Paull Hermann Pauson George Edward Payne Philpots Severin Pinkasfeld Hugh Graham Pipes Lemuel Eastburn Potts Peter Carvey Pulver Abraham Raffman Ira Miller Rapp Samuel Alexander Richards David Stephen Roberts

Harry Louis Rosenbaum Joseph Rubin Frank Henry Salter Samuel Rutherford Sawyer Gerald Frederic Schaffner George Norton Serre David Scull Smith Charles Victor Snyder Ernesto Solis Crocker Arthur King Stebbins Simeon Aaron Steeves Edward Courtenay Stillwell Fred W. Stoddard Hugo Karl Strobel William Everett Strous Rupert Ingram Sutton George W. Taylor Walter Dee Thomas Alva Clarke Thompson Arthur George Trott John Coe Vandervoort Victor Roy Wagner Charles Aloysius Walsh John Leo Weiler Joseph Weinberger Walter Henry Welch William Henry Weston Carroll Byington Whitcomb Charles Ralph Wilson Ernest Charles Winstone Horace Stephen Woolston Emil Zauber

In University Council, December 16, 1910:

Doctor of Dental Surgery:

Doctor of Denial Surgery.					
Howard Bayles Arnoldas	of	the	Class	of	1910.
James Carl Criswell"	"	a	"	46	1910.
Howard McNeal Hart"	46	"	61	"	1910.
James Carl Criswell. " Howard McNeal Hart. " Samuel Corinaldi Hart. " Edmundo Pizarro " Ralph Roswell Stoddard. " Herbert Walmsley Thompson. "	"	"	66	"	1910.
Edmundo Pizarro"	66	"	"	"	1910.
Ralph Roswell Stoddard"	66	66	66	66	1910.
Herbert Walmsley Thompson"	66	66	66	"	1910.

STUDENT DENTAL SOCIETIES.

The James Truman, Edwin T. Darby and Edward C. Kirk Dental Societies were organized for mutual benefit in the study of Dentistry; as a means of training in the management of dental professional organizations, to foster the spirit of individual investigation and research, and to promote social intercourse and good fellowship among the members. Every member of the Societies in good standing, on graduating from the School of Dentistry, receives a certificate. Regular meetings are held every two weeks during the session.

SOCIETY OF THE ALUMNI OF THE SCHOOL OF DENTISTRY.

President .- Dr. Victor Cochran.

Vice-Presidents.—Dr. Frederic A. Peeso, Dr. Eugene K. Krause, Dr. James T. Ivory.

Secretary-Treasurer.—Dr. E. L. Kanaga, 1623 Walnut Street, Philadelphia.

Every graduate of the School of Dentistry in good standing is considered to be a member of this Society, and will be sent bills for dues. Any member who shall pay into the treasury the sum of five dollars, or who shall for five years pay into the treasury the sum of one dollar annually, can by payment of \$1.50 secure a membership certificate.

The annual meeting is held on the day previous to Commencement, and is followed in the evening by a collation.

Alumni are requested to send to the Secretary notice of change of residence, or other information likely to be of service to the Society.

HOUSTON HALL.

Houston Hall is the home of the Houston Club, to membership in which any member of the University is eligible.

Its purposes are to provide for the students a place where all may meet socially on common ground, and to furnish every available facility for healthy recreation and amusement in leisure hours. The equipment of the Hall includes a reading-room, with a large number of periodicals and newspapers; smoking-rooms, billiard and pool

tables, tables for chess and checkers, a correspondence room, bowling alleys, shuffle boards, a bath-room, including shower and needle baths; athletic trophy rooms; a large auditorium with grand organ; rooms for the University papers and other organizations; a dark room for amateur photographers and many other rooms for general purposes.

The Christian Association, which has its headquarters in Houston Hall, is prepared to furnish prospective students, through its Secretary, full information with regard to the various undergraduate social activities, both secular and religious.





DENTAL CALENDAR FOR 1911-12.

1911.	
	Easter Recess begins: 6 P. M.
	Easter Recess ends: 9 A. M.
	Entrance Examinations: 2.30 P. M.
June 21, Wednesday	Commencement, II A. M.
Sept. 21, Thursday	Competitive Examination for Dental
	Scholarships: 9 A. M.
Sept. 21, Thursday	Entrance Examinations: 2.30 P. M.
Sept. 26, Tuesday	Re-examination of Conditional Stu-
	dents, and Examinations for Admis-
	sion to Advanced Standing: 10 A. M.
Sept. 29, Friday	Session begins: 8 P. M.
Nov. 29, Wednesday	Thanksgiving Recess begins: 6 P. M.
Dec. 4, Monday	Thanksgiving Recess ends: 9 A. M.
Dec. 22, Friday	Christmas Recess begins: 6 р. м.
1912.	
Jan. 3, Wednesday	Christmas Recess ends: 9 A. M.
Jan. 29, Monday	Mid-Year Examinations begin: 9 A. M.
Feb. 22, Thursday	University Day. Recess.
	Easter Recess begins: 6 P. M.
	Easter Recess ends: 9 A. M.
	Commencement, II A. M.
3, 33, 30, 30, 30, 30, 30, 30, 30, 30, 3	
The state of the s	

